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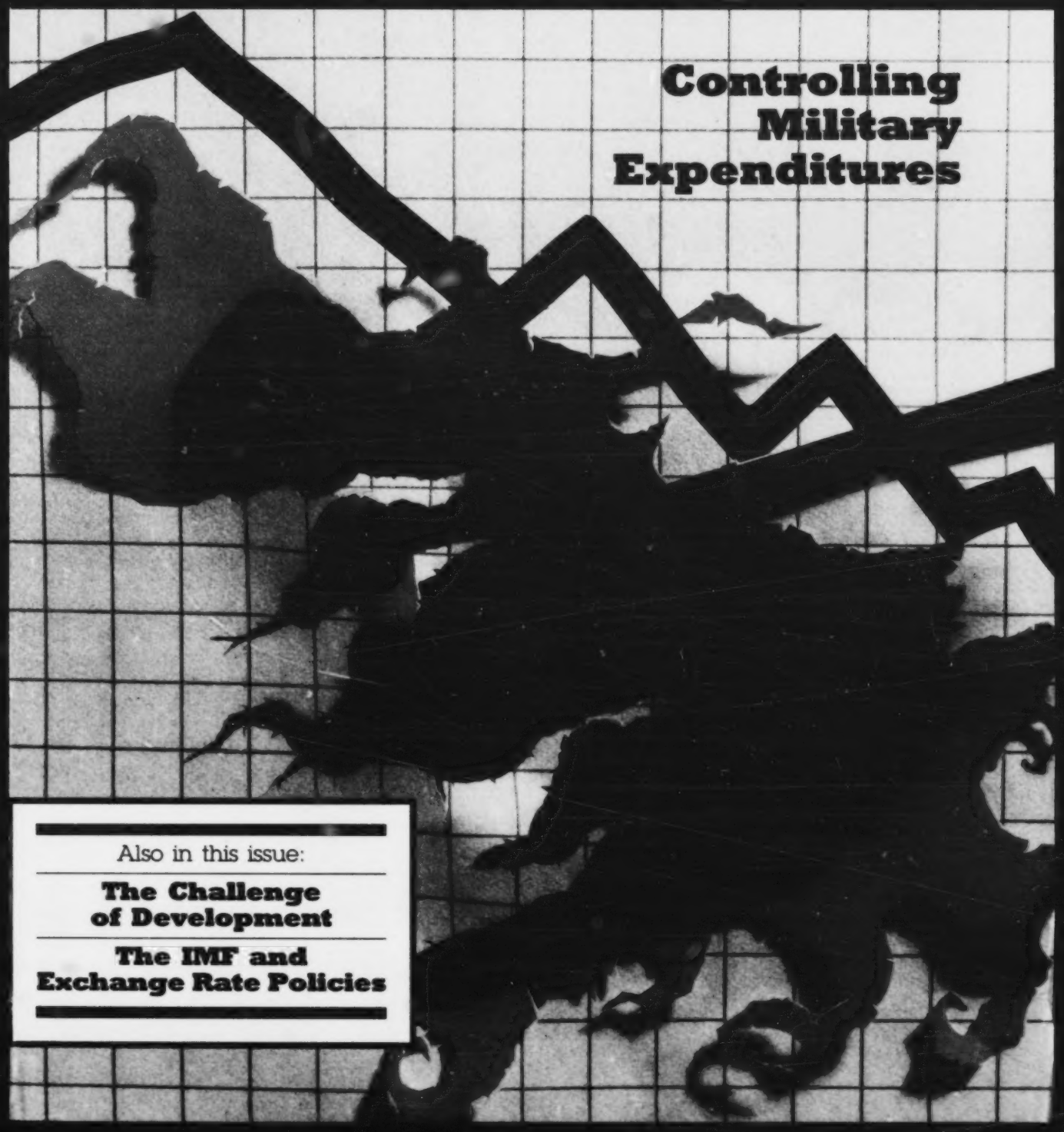

Controlling Military Expenditures

Also in this issue:

The Challenge of Development

The IMF and Exchange Rate Policies

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Research Challenges for Development Economists

We need to understand more deeply a number of critical issues that confront the World Bank and its member countries before we can transform knowledge into effective actions

Lawrence Summers

Much of what is said about the propensity of economists to disagree is vastly exaggerated, as evidenced by the striking degree of consensus in the advice that the broad mainstream of economists has given on the transition in Eastern Europe. But certainly, there is much we do not know. Despite rapid technological progress that has created all sorts of new economic opportunities, living standards over the last decade have actually declined on two continents—Africa and Latin America. It seems that we, as economists, have more ability to identify and reject quack prescriptions that violate necessary conditions for development and growth, than we have to provide policies that ensure sufficient conditions.

This essay is based on the keynote speech delivered by the author at the World Bank Annual Conference on Development Economics in Washington, DC, in April 1991. The full text of the speech will be appearing in a special supplement of the World Bank Economic Review *and the* World Bank Research Observer *in 1992.*

How can we help lift billions out of the poverty trap and set them on the path to sustainable development? This article argues that more than ever before, the central priority for the World Bank, and indeed for the entire aid community over the next decade, is to create and help implement improved strategies for economic development. These strategies must rely, to a greater extent than before, on the transfer and transformation of knowledge, so as to compensate for the expected paucity of development assistance in the waning years of this century. To put it bluntly, since there will not be much development money over the next decade, there had better be a lot of good ideas.

Money vs. ideas

Consider the historical volume of transfers to the developing countries and the projected volume of aid for the next decade. For the developing world as a whole, aggregate net transfers in 1991 dollars totaled $50 billion in 1980. Over the last five years, however, these transfers were significantly negative on average. A restoration of the earlier levels of flows is not in sight. While the cessation of net positive transfers to the developing world during the 1980s reflected, in large part, the commercial banks' response to the debt crisis, the prospects for large net transfers from institutions like the Bank have declined as well. Over the 1975–80 period, the World Bank Group made net transfers to the developing countries of $9 dollars per person in the developing world (in 1991 dollars). Over the next five years, these net transfers are projected to decline to just over $2 per person in the developing world. For a large number of countries that do not qualify for concessional IDA flows, there will actually be a negative flow of money to the Bank (see table).

Resource transfers will be limited. Yet this potential financial constraint need not diminish the effectiveness of our role. While aid flows are crucial, the reality is that improving the efficiency of development assistance to the developing world will often make a greater contribution to growth. Consider, for example, the following comparison: a two tenths of one percent increase in total factor productivity in developing countries would contribute more to their GDP growth than an additional $100 billion of capital invested at

historical rates of return.

This suggests that, in the end, what will make the greatest difference for development are well-implemented, good strategies, and not simply on the transfer of resources. Consider the most widely cited of all foreign aid successes—the Marshall Plan. During the Marshall Plan years, the United States granted the recipient countries less than 2.5 percent of their incomes per year, and less than one third of the resources transferred were used directly for investment. Yet what the Marshall Plan did, and on a major scale, was to help provide economic stability and allow governments to provide an enabling environment in which the private sector could flourish.

Public inaction vs. action

With money scarce, ideas are needed. But what type of ideas? The great lesson of research and experience in the 1970s and the 1980s was that governments that tried to occupy the commanding heights of their economies found themselves looking a long way down, to stagnating growth and deteriorating performance. The policy lesson is clear enough: Governments must get out of producing and allocating goods and services—activities that are best performed through competitive markets. That message has been heard around the world and to great effect. One need only consider the booming economy of Mexico, the vast increases in agricultural productivity obtained in China, or the bold reforms being undertaken in Eastern Europe, to see its power.

The market message was new and true. But it is only part of the story. Getting the government out of economic activities is not the correct answer every time. Sometimes, governments will be called on to do more of what they must do, and to do it better—making the tangible and intangible infrastructure investments that underpin a healthy private sector and rapid growth, and ensuring social and economic justice.

Undertaking such activities effectively is much more difficult than divesting them, especially in a resource-constrained environment. We have concentrated attention in recent years on governments' errors of commission. It is time for more work on governments' errors of omission. The Bank's research agenda for the next few years, therefore, will address the pivotal issue of helping governments become more effective in identifying and performing the central functions that only they can do.

What do we need to know?

An important dimension of any research program should be helping to set the priorities for tomorrow, as well as responding to the needs of today. To this end, the Bank will continue working on its current areas of operational emphasis—the environment, reform of socialist economies, debt, adjustment, and so forth. Against this background, the Bank will need to re-examine and revivify its work in a number of traditional areas.

Evaluating infrastructure investments. Perhaps the most traditional role of government is investing in public goods—broadly defined—and getting as much return from those investments as possible. Helping governments make necessary infrastructure investments was, after all, an important rationale, perhaps the central rationale, for the creation of the Bank. Economic logic suggests that the Bank's capital should be allocated to activities that produce the highest returns. But that is not the way the Bank and other development institutions operate. Our portfolio is highly diversified, with investment in many sectors in most countries. Why? I fear that we practice a kind of diversification out of ignorance. Not knowing what types of projects have the highest returns, we invest in many different things, as do our member governments.

Yet, there is every reason to think that there are large differences in the social rate of return to different types of project lending. The Bank's own operational evaluations suggest a large variation in the rate of return to projects in different sectors. This raises, as a vital question for research, the challenge of making tough judgments about the social return to different types of investment. Of course, comparing bridges to power plants is like comparing apples to oranges. But seeking to compare their returns analytically must surely make more sense than investing in both to ensure that the better one is included in the portfolio.

Making comparisons of investment returns across different types of investments will demand techniques of analysis that go beyond traditional cost benefit analysis, to cover a variety of externalities that different types of projects produce. For example, recent trade theory has shown that the gains from free trade go beyond reduced "deadweight loss triangles" (i.e., reducing the additional costs incurred by consumers as a result of trade restrictions), to include increased efficiency, reduced rent-seeking, and the gains associated with the exploitation of economies of scale and increased product variety. Yet these gains are hard to quantify with standard methods. Similarly, improved transportation no doubt produces many economic benefits beyond reducing travel time, yet such considerations have not been fully or even partially accommodated in our analyses of the attractiveness of this type of lending. Our goal must be to devise ways of making more systematic and more complete evaluations of different types of projects that recognize the full range of their impact.

Pushing market development. A different kind of infrastructure that government provides is the development of markets that otherwise would not exist. Advocates of laissez faire would do well to remember that there was no commercial mortgage market in the United States immediately after World War II. It took the Federal Housing Administration to demonstrate that loans for houses were feasible and that lenders could collect those loans and make a profit, while allowing people who could not otherwise afford homes to purchase them. That experience, and its message, is relevant for institutions and places where capital markets are much less developed than they were in the United States even after World War II.

There is also a major and obvious need to help countries and companies guard against the enormous risks they face from highly volatile international financial and commodity markets. Countries are also exposed, in complex ways, to changes in interest rates, and in their own and their competitors' exchange rates. The challenge is to find ways, and to help governments find ways, of using more effectively the vast world capital markets to spread risk and permit it to be borne more efficiently. Often this will involve enabling speculators in developed countries to take on risks that developing countries can ill afford. In some cases—for example, in the case of developing country oil importers and oil ex-

World Bank net transfers to the developing world
(In millions of 1991 US dollars)

	1975–80	1990–94
Net transfers		
IBRD	14,290	–13,678
IDA	14,078	22,374
Total net transfers	28,368	8,696
	(In US dollars)	
Net transfers per capita	9.01	2.05

Source: *World Debt Tables*, and other World Bank sources.

porters—this can be done within the developing world.

Attracting capital. Capital market development also involves attracting capital. As mentioned at the outset, recent trends suggest that the flow of capital to the developing world will, even in fairly optimistic scenarios, be much smaller in the near future than it has been in the recent past. Commercial bank flows to many developing countries will not be restored any time soon. The downside risk associated with lending to the developing world became obvious during the last decade. As a result, in the coming years, investors will demand a large potential upside to their investments in developing countries, so as to balance the downsides they faced in the past. In order to replace commercial bank lending, the developing world will need equity flows and direct foreign investment on a large scale. The Bank and the International Finance Corporation (particularly the latter) have done important work in catalyzing those flows. But equity flows are still very small on the whole. We need to think about ways of leveraging them more effectively, because it is equity not debt flows that will effect large transfers or large foreign-financed investment in developing countries during the next decade.

Achieving economic justice. The World Bank is committed to poverty reduction. But poverty alleviation is a means, not an end; it is a way of allowing people to live healthier, longer, more comfortable, and fulfilling lives. We know a great deal about the distribution of income, and a fair amount about how to change it, but, as evident in the work done for the *World Development Report 1991*, there is little hard quantitative evidence on the effect of social sector interventions on health, literacy, nutrition, and so forth. Any effort to quantify the financial effects of lives saved and relate them to the value of original social sector investments is problematic to say the least. But it is not unreasonable to ask for some amount of information bearing on what can be accomplished through social sector programs.

Economic growth and social progress are related, and rising tides do lift all boats. But there are vast differences in social sector performance among countries at similar income levels. Among low-income countries, Indonesia, Sri Lanka, and the Republic of Yemen have almost exactly the same per capita income. Yet, life expectancy is 51 years in Yemen, 60 in Indonesia, and 70 in Sri Lanka. Among upper middle-income countries, Brazil and Uruguay have essentially the same income level, but life expectancies differ by six years. To put these figures in perspective, consider that eliminating all forms of cancer would add only three years to the average life expectancy in the United States, and much less in poorer countries.

What are the roots of the differences? What can be done to reduce them? The very different experiences among countries must demonstrate the vast potential of strategically designed, relatively inexpensive government interventions. But how? The answer must go well beyond targeting programs to reach specific groups. Differences in life expectancy or illiteracy of the kind described above cannot be ascribed simply to the failure of some countries to concentrate on the lower social strata of their population. They must reflect differences in all social strata. The problem of delivering those services seems to me an important one for the Bank's future research.

Beyond the comparisons across countries, and of potentially equal or greater importance, is a micro-dimension. We do not have well crafted and tested systems of comparing smaller "control" groups of people within different parts of a society and tracking their socio-economic development over time. Medicine has agonizingly come to the conclusion over the last century that only double blind evaluations of drugs or carefully controlled statistical evaluations of surgical procedures have any validity at all. Without such comparisons, mistakes are incessant. Obviously, the scope for controlled evaluations is greater in some settings than in others. In the real world, not every *ceteris* can be *paribus*. But, I would suggest that too often we, as development economists, operate in a kind of statistical Stone Age. We would learn much from maintaining a standard policy of setting up baseline groups to use as controls in evaluating social sector projects or, to the extent that matched enterprises can be found, even projects directed at restructuring enterprises.

Social services are important. So is raising the income of those who work, and that means causing their skills to be more highly valued in the labor market. We must rechannel some of the energy we have directed at understanding the capital market to understanding the labor market. That will involve fathoming more accurately the impact of labor market regulations on output and participation rates, so their removal would become a more significant part of our adjustment programs. But it also means finding ways of harnessing labor markets to provide employment not for a small fraction of workers at very high wages, but for a much larger number of workers in labor-intensive industries. Human capital is a principal asset of the poor. Raising its return has to be a central investment, and, therefore, a research priority.

Population is another area, nearly unique among areas of development policy, where there is a disjunction between widespread seemingly compelling beliefs and the current state of the scientific literature. Perhaps this is not surprising given how much emphasis in recent years has been devoted to the determinants of population growth and how little to its consequences.

It is widely believed that population growth is a major barrier to economic development and a perpetuator of poverty in developing countries. Robert McNamara represented the views of many when he equated population growth and nuclear war. Yet a relatively recent National Academy of Science report provided a dramatic shift in viewpoint, reaching a rather agnostic view about the consequences of population growth. It seems likely that improving our understanding of the population question will require recognizing that reducing population growth has differing consequences in different circumstances. Changes in population growth are likely to have different outcomes when they are brought about by declines in death rates of older adults, declines in child death rates, responses of families to changes in social security arrangements, and specific efforts at promoting family planning. The impact of changes in population is also likely to vary across places. Where a large fraction of the population lives off the land, population growth is likely to be more pernicious than where the land has diminished in importance as a factor of production.

Beyond the traditional question of the impact of population on growth, there are a host of other questions that need to be answered, so as to guide a rational population policy. How strong are the links between population growth and environmental degradation? Is it really population pressure that is pushing migration into Rondonia in western Brazil? How much extra pressure does population, as distinct from other problems, put on African soils? What are the links between population

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growth and inequality in the wage structure? Does population growth affect the wage structure? What are its fiscal consequences? And will investments in population policies pay off for governments?

Gauging more accurately the impact of population growth on development performance is only the beginning of what we need to know about demographic change and its consequences. Over any but the longest horizon, there is very little that can be done about the rate of population growth. We need more effective policies to deal with the increasingly aged population of the developed world—and we must think through the pressures for migration that are rapidly building. If current projections hold, over the next two decades the developing world will account for 95 percent of labor force growth, but for less than 15 percent of capital investment. This calls for either transferring capital to places like Africa where the labor force is growing more rapidly, accepting large flows of migratory labor, or recognizing that an important force will be operating to increase inequality over the next 20 years.

Governance. Beyond the questions of what governments must or can do, is an issue that may well be the most important, and perhaps the most difficult to grapple with: the question of governance. We have learned over the last three decades that the heavy hand of government retards growth, and we have seen that, contrary to economists' beloved tradeoffs, very often even as governments retard growth, they are also insensitive to objectives that are thought to conflict with growth. Concerns about the environment or inequality, which go beyond the bottom line, are not met more effectively by the heavy hand of government.

That much we know. We are much less clear on the right line between the invisible hand and government's helping hand. It may be fair to assert that the rhetoric surrounding the use of selective credit policies in Japan and East Asia is not very different from the rhetoric that surrounds development banks and other tools of selective credit policy in other parts of the world. But the results have been dramatically different. In a sense, the policies must have been different also. Failed policies in Asia have been reversed much more quickly than failed policies in Latin America or Africa, and have not, therefore, mushroomed or bred the same kind of corruption. But in a deeper sense, the underlying policy intention has been the same in both places.

Why the difference in outcomes? It must go back in some way to politics—broadly defined. Perhaps differing degrees of urbanization or differing amounts of underlying inequality shape political forces differently, or so, at least, it has been argued. Just how susceptible these things are to change, one cannot say with certainty. The view that governments should simply swear off selective policies if they cannot do them well may be a bit naive. The same political forces that make governments unable to implement those policies well may make governments unable to resist engaging them.

Understanding more fully the political roots of economic success and failure is an intellectual task of great importance. By itself, it can contribute to judgments about where assistance is and is not likely to be effective. Beyond this question, there is the issue of crafting appropriate policy advice that reflects political realities, which insulates results from inherently political pressures, as in the case of countries that rely on foreign companies to collect custom duties; or that create dynamics that push the politicians in the appropriate direction, as in the case of making them substitute shorter prohibited for seemingly endless permitted lists of goods that can be imported.

There is a very sensitive and closely related question—that of the links between democracy, civil liberties, and economic performance. We have learned an important lesson over the last decade: authoritarian regimes are not necessary to bring about growth. Growth, on average, proceeds at about the same rate in democratic and nondemocratic regimes. We know two other things. Since World War II, there has been no war involving two democratic nations, and in the last 50 years, as Amartaya Sen pointed out at the Annual World Bank Conference on Development Economics in 1990, there has never been a famine in a country with a free press. These facts raise the question of whether democracy, while not essential to growth, may in a whole set of ways improve development performance on other dimensions. It is time that we look in much more detail than we have in the past at the relationship between democracy and development. We need, as well, to begin to think about what we can do, beyond economic policies that promote growth, to improve the performance of governments.

Recent events press yet another question related to governance. What is the future of nation states as independent actors? On the one hand, pressure for integration and cooperation mounts, as in the European Community. On the other hand, pressure for devolution increases in a number of countries. This raises questions of managing the transition to more autonomous constituent states within a nation-state to preserve the stability that is essential to growth.

Conclusion

In a world that is short of money, it is important to have ideas. Research spawns ideas. Focusing the development research effort over the next decade in the areas discussed above can be given the Pascal defense. To paraphrase Pascal, if there is no God and I go to church on Sundays, I will have wasted some time. If there is a God and I fail to go, the costs will be transcendently greater. So, too, with the search for new ideas. The payoffs to success dwarf the consequences of failure. ■

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Lessons from Economic Development

What have we learned about the path to successful development?

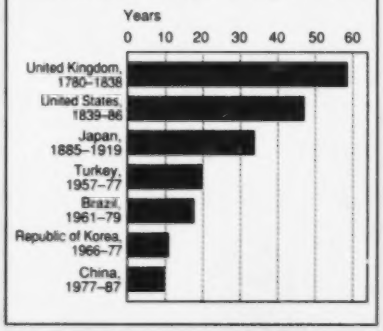
Vinod Thomas

During the past 30 years, developing countries have roughly doubled their average incomes and achieved striking gains in health and education. A few have seen their living standards rise fivefold, a rate of progress that is extraordinary by historical standards. Several developing countries have managed to double average incomes in a much shorter time period than did the industrial countries in earlier periods of their development (see Chart 1).

At the same time, the picture in many parts of the developing world has been dismal. Despite the vast technological advances of the 20th century, about one quarter of all developing countries have witnessed an actual fall in living standards in the past 30 years. As a result, more than one billion people, one fifth of the world's population, live on less than one dollar a day—a standard of living that Western Europe and the United States attained 200 years ago.

The sharp contrast between success and failure is the starting point of the *World Development Report 1991*. Why have country experiences been so different? The processes driving economic development are by no means fully understood. But, much can be learned from the tremendously diverse record. Rapid industrialization, pushed by the heavy hand of government through discrimination against agriculture and infant-industry protection, was a favored strategy for many years. Today, there is clear evidence that such distortions impede development.

Chart 1
Periods during which output per person doubled in selected countries



Source: World Bank, *World Development Report 1991*.

Instead, the most crucial determinants appear to be investments in human and physical capital, along with the strengthening of market competition. The Report concludes that countries must strive to create a market-friendly environment, in which governments allow markets to function well, while intervening efficiently when markets prove inadequate.

Paths to development

Throughout history, the pace of development has been influenced by factors beyond the control of individual countries. Over the past 30 years, the average growth of developing countries has tracked the average growth of industrial countries remarkably (see Chart 2). Yet, faced with similar external factors, individual countries have performed quite differently—in the past, some countries, for example, Nigeria and Mexico, even regressed after favorable price shocks. A study of 33 countries did not find a statistical association between differences in growth rates and the magnitude of external shocks, and an analysis of 40 countries suggested that improvements in domestic policies and institutions could be a more powerful source of better performance than improvements in external conditions.

What actions, then, will promote rapid economic development in the 1990s? On the external side, lower trade barriers, lower real interest rates, and larger capital flows will improve development prospects for all. But, how well individual countries do under better global conditions—or even despite poor ones—will depend crucially on domestic factors as elaborated below.

The World Development Report 1991 has been prepared by a team led by Vinod Thomas that included Surjit S. Bhalla, Rui Coutinho, Shahrokh Fardoust, Ann E. Harrison, Daniel Kaufmann, Elizabeth M. King, Kenneth K. Meyers, Peter A. Petri, T.N. Srinivasan, and N. Roberto Zagha. The International Economics Department prepared the data and projections. Clive Crook was the principal editor. Stanley Fischer played a principal role in the initial stages of the Report's preparation. The work was carried out under the general direction of Lawrence H. Summers.

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Domestic sources of growth

In more than 60 developing countries examined, changes in the use of capital and labor made a large contribution to changes in output. But, more significantly, differences in growth performance arose less from differences in the growth of capital than from growth in total factor productivity. Countries that have registered the highest growth rates—namely, the economies of East Asia—were the ones with the highest productivity growth. In countries where growth has stagnated, there has been little improvement in productivity.

But, what drives productivity? The answer is technological progress, which in turn is affected by history, culture, education, institutions, and policies. Technology is diffused and assimilated through investments in physical and human capital and through trade. Preliminary analysis links the growth in productivity and output to education and economic policy. The levels of schooling of the labor force significantly contribute to increases in productivity and output. A better policy environment also triggers higher productivity and output.

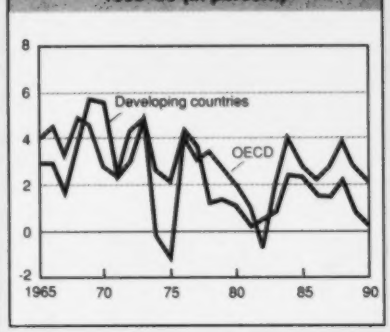
The evidence goes further. In addition to the individual effects of education and policy on productivity and growth, there seems to be an interactive effect when they are combined (see Chart 2). Such an interaction appears even stronger when considering productivity, rather than output. These results do not show causation, but they suggest the benefits of investing in education and improving the policy climate simultaneously.

A detailed study of the World Bank's investment projects confirms the importance of policies in raising the efficiency of investments. The rate of return to public and private sector projects implemented under policies that do little to distort prices is consistently higher than under policies that result in more distortions. A substantial improvement in policy is associated with a 5–10 percentage-point increase in the rate of return for projects, or a 50–100 percent increase in the average return.

Market-friendly approach

In creating the best environment for changes in productivity to take place, governments must look carefully at how the state and markets interact. The four critical areas—human resources, the domestic economy, the international economy, and macroeconomic policy—are interrelated, and because of such links, if handled properly, promise to render disproportionate benefits. For example, a relatively undistorted domestic economy rewards those who build up their human capital more generously than does a distorted one, and microeconomic efficiency makes it easier to keep inflation low.

Chart 2
The annual change in per capita GDP in OECD and developing countries, 1965–90 (in percent)

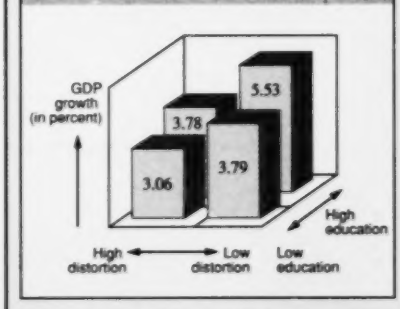


Source: World Bank data.

Investment in people. Improving people's education and health is key to economic performance, and therefore, to development. Increasing the quantity and quality of investments in people thus rightly forms a central part of the development agenda. But markets in developing countries cannot be relied upon to provide people—especially the poor—with adequate education, health care, nutrition, and family planning.

Many governments are investing far too little in human development with predictable results; in Brazil and Pakistan rapid growth alone was insufficient to improve the social indicators, such as life expectancy, literacy, and infant mortality. In Chile and Jamaica, however, investments in people improved these indicators, even in periods of slow growth. These varying country experiences show that different levels of investments in human resource development and their quality have strongly contributed to these differences (see accompanying article by Elizabeth King).

Chart 3
Policy distortion, education, and growth for 60 developing economies, 1965–87



Sources: International Currency Analysis, Inc., various years; World Bank data.
Note: High distortion reflects a foreign exchange premium of more than 30 percent; low distortion, a premium of 30 percent or less. Education is measured by the average years of schooling, excluding postsecondary schooling of the population age fifteen to sixty-four. High education is defined here as more than 3.5 years; low education, 3.5 years or less.

Competitive microeconomy. Domestic and external competition has very often spurred innovation, the diffusion of technology, and an efficient use of resources. Japan, the Republic of Korea, Singapore, the United States, and Europe's most successful economies have all established global competitive advantage through the rigors of competition. Conversely, in much of the developing world, systems of industrial licensing, restrictions on entry and exit, inappropriate legal codes concerning bankruptcy and employment, inadequate property rights, and price controls have all weakened the forces of competition and held back technological change and the growth of productivity.

An efficient domestic economy also requires public goods of correspondingly high quality. These include, most fundamentally, a regulatory framework to ensure competition, and legal and property rights that are both clearly defined and conscientiously protected. In addition, investment in infrastructure, such as irrigation and roads, which provide high returns, is essential.

Global links. When international flows of goods, services, capital, labor, and technology have expanded quickly, the pace of economic advance has been rapid. Openness to trade, investment, and ideas has been critical in encouraging domestic producers to cut costs by introducing new technologies and to develop new and better products. The positive effect of import competition on firms in, for instance, Chile, Mexico, and Turkey, and greater competition in export markets on firms in Brazil, Japan, and the Republic of Korea confirm the decisive contribution to efficiency that the external economy can make. Removing barriers to international trade means that a country's own population is not a constraint to achieving economies of scale. Singapore, with a population of about 2.7 million, exports about $35 billion worth of manufactured goods annually—nearly twice as much as does Brazil with a population of about 147 million, or three times as much as Mexico with a population of about 85 million.

The international flow of technology has taken many forms: foreign investment; foreign education; technical assistance; the licensing of patented processes; the transmission of knowledge through labor flows and

For policymakers everywhere: seven lessons in reform

Successes provide the "dos," failures, the "don'ts."

Lack of ownership undercuts the programs. For success, a program needs to be viewed as a country's own, and nationals need to participate in its design and development.

Flip-flops in reform hurt credibility. Flexibility is important, yet bold, seemingly irreversible steps by the government build confidence, especially in countries with a record of policy reversals.

Institutional demands must not be glossed over. Policymakers should emphasize the need for developing institutional capacity from the outset, as institution building takes time.

Attention to macroeconomic instability is fundamental. In very unstable and inflationary settings, up front and substantial reduction of the fiscal deficit is paramount.

Vulnerable people must not be forgotten. Special programs of assistance to the poor must be put in place, and programs to compensate and retrain discharged civil servants are often needed when the public sector retrenches.

Partial attempts often fail. There is a premium on simultaneously taking complementary actions, such as external liberalization and domestic deregulation.

It pays to be realistic. Policymakers and external agencies need to be realistic in preparing the financing plan to support the reforms. It also pays not to promise too much too soon, yet to be loud and clear about the importance of reforming.

exposure to foreign goods markets; and technology embodied in imports of capital, equipment, and intermediate inputs. Policies to promote these flows include greater openness to investment and to trade in goods and services, as well as appropriate education and on-the-job training. Nontariff barriers, which are especially distorting, need to be phased out, and tariffs reduced, often substantially.

Stable macroeconomy. A stable macroeconomic foundation is one of the most important public goods that governments can provide. When government spending has expanded too far, the result has often been large deficits, excessive borrowing, or monetary expansion, and problems in the financial sector. These have been quickly followed by inflation, chronic overvaluation of the currency, and losses of export competitiveness. Excessive borrowing can also lead to domestic and external debt problems and the crowding out of private investment. Strengthening the confidence of the private sector is now a basic component of efforts to spur renewed growth and generate employment in several countries with previous experience of macroeconomic instability, including Argentina, Bolivia, Ghana, the Philippines, and Turkey.

A government can maintain a prudent fiscal policy by looking carefully at the division of economic tasks between the government and the private sector. That is desirable in any case. In reappraising their spending priorities, implementing tax reform, reforming the financial sector, privatizing state-owned enterprises, and using charges to recover the cost of some state-provided services, governments can meet the goals of microeconomic efficiency and macroeconomic stability at the same time.

Rethinking the state

The experience in fostering investments and better policies suggests how governments and markets can interact most productively as well as avoid costly conflicts. Put simply, governments need to do less in those areas where markets work, or can be made to work, reasonably well. Governments need to let domestic and international competition flourish. At the same time, governments need to do more in areas where markets cannot be relied upon. Above all, this means investing in people, building social and physical infrastructure, and protecting the environment. It also requires a strengthening of political and economic institutions and more efficient policies for income redistribution and growth.

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It has often been argued that a democratic polity makes economic development more difficult to achieve. Reform almost always comes at the expense of certain vested interests, and macroeconomic stabilization usually means at least a temporary rise in unemployment: the claim has been that only authoritarian governments can make such hard choices. This is patently false. Evidence from large samples of countries offers no support at all for the view that individual freedoms hold growth back. Neither does it endorse the notion that authoritarian governments, on average, show greater promise for achieving rapid growth. Looking beyond growth to the other elements of economic development, the lesson of experience is clear: political freedoms, and civil liberties—such as a free press and the free flow of information—seem to be associated with progress in health and education in large groups of countries.

Clearly, economic policies are not chosen in a vacuum. All but the most repressive governments need to retain a measure of popular support for their actions. Often this support has been bought with an assortment of damaging policy interventions (such as high tariffs, currency overvaluation, and industrial licensing), as well as corruption and wasteful public spending. One of the most questionable categories of public spending is that on the military. In many countries it is well in excess of the combined public expenditures on education and health.

Governments sometimes intervene in the market to address political instability and other political constraints. But the result is that all too often, the combination of pervasive distortions and predatory states leads to development disasters. A vicious circle of harmful interventions entrenches special interests. Reversing this process requires political will and a political commitment to development.

Institutional development also assists in political and economic progress. The establishment of a well-functioning legal system and judiciary, and of secure property rights, is essential. Reform of the public sector is a priority in many countries. That includes civil service reform, rationalizing public expenditures, reforming state-owned enterprises, and privatization. Related economic reforms include better delivery of public goods, supervision of banks, and legislation for financial development. Strengthening these institutions will increase the quality of governance and the capacity of the state to implement development policy and enable society to establish checks and balances.

Experience also suggests that a relatively equitable distribution of income and assets

broadens the base of political support for difficult changes. But caution is needed. Redistribution through distorting prices (such as subsidized credit) can be damaging, and the benefits often go to the less needy. Many of the policies recommended in the Report are expected to tilt the distribution of income in favor of the poor.

Finally, economic reform itself is an essential means for strengthening market and state institutions and achieving development. What are the lessons on the nature of economic reform (see box)? Swift reforms help to neutralize the resistance of interest groups opposed to change; at the same time, more gradual reforms may allow time to address their concerns. Countries such as Chile, Ghana, Indonesia, the Republic of Korea, and Mexico show that packages of comprehensive reform, with at least some bold changes made at the start of the program, are more likely to succeed, whereas the social cost of not reforming rapidly can be very great, as Argentina, Côte d'Ivoire, Peru, countries in Eastern Europe, and others discovered in the 1980s. There is no single formula for success, but swift and comprehensive reforms—with strong, accompanying measures to reduce poverty and protect the environment directly—will usually be the right way forward. ■

Challenges in Human Development

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In the past century, vast progress has been achieved in social welfare—the ultimate goal of development. This advance has usually taken place hand-in-hand with economic growth, but even where growth lagged, the quality of life improved. Governments have played a leading role—public spending on classrooms and textbooks, safe drinking water and sanitation, nutrition and immunization programs, and family planning clinics have been critical, especially for the world's poor. But the demands of the future require better targeting, new and more efficient methods of delivery, fewer regressive subsidies, and closer partnership with the private sector in the provision of certain services.

The agenda for human development in the 1990s differs widely from country to country. Even so, most countries face similar challenges.

Slowing population growth. Nearly 95 percent of the growth in the world's population in the next 25 years will be in developing countries. High fertility rates and poverty together form a vicious circle that threatens the welfare, or even the survival, of their populations, especially mothers and children. Income growth has generally slowed population growth, but family planning programs and a rise in education levels have made this possible even for poorer countries.

Improving health and nutrition. The World Health Organization and UNICEF estimate that 43 percent of about 15 million child deaths each year could be prevented through vaccinations or other low-cost interventions. But, apart from reducing infant mortality rates and increasing life expectancy, two other tasks are urgent: providing nutrition to improve the mental and physical well-being of children and adults, and improving the control and treatment of disease. One lesson is that creative delivery of nutritional initiatives pays off; a second is that there is no single, off-the-shelf solution to designing a national health strategy. Each country must choose the mix of curative and preventive health services, and of public and private delivery that is most cost-effective in its institutional and epidemiological context.

Building technical capacity. Building and strengthening technical capacity—the ability of people to use and modify new and existing technologies—will be crucial in catapulting many countries on the path toward sustained growth. The government could play two roles: expanding better-quality primary and secondary education, and developing incentives to increase the supply of and demand for more specialized technical training.

Reducing poverty. More than one billion people in the developing regions today live in poverty. *World Development Report 1990* concluded that this number could be reduced by a two-part strategy of labor-intensive economic growth and efficient social spending, which together expand opportunities for the poor. But these may not be enough. Safety nets may be needed to protect the most vulnerable groups.

The role of the state

Success in development requires a careful balancing of the roles of the government and the private sector across a broad range of policies. The evidence shows that investing in people makes sense not just in human terms but also in hard-headed economic terms. But in this area, more than in any other, except macroeconomic policy, the state must generally take the leading role.

Over the past decade, social programs have come under severe financial pressure during economic adjustment programs. It will often make sense to shelter some social programs from short-term economic pressures for the sake of long-term investments in human development and the quality of life.

Many well-designed and well-targeted programs have worked—and not necessarily with a heavy drain on public resources. Several countries have encouraged community participation and support for social services. Korea's educational expansion in the 1950s shows that this need not create inequities. In health, countries are experimenting with private insurance schemes as a way to meet the future demands, especially for expensive curative care. Relying for some services on nongovernmental organizations helps to broaden access to adequate education and health care, but public subsidies, if any, should be linked to the quality of services provided.

When economies are badly managed, investments in people may go to waste. For example, countries that grew between 1975 and 1985 have infant mortality rates 25 percent lower than countries that did not grow. Policies that encourage innovation and investment, and that increase the demand for workers who are better educated and better trained, provide the crucial environment for development. ■

For a fuller discussion of these issues, see "Investing in People," World Development Report 1991, *Chapter 3.*

Economic Policy and Economic Growth

A critical examination of the relative roles of culture, technological advances, and economic policies

William Easterly

Does economic policy affect the long-run growth rate of nations, and if so, then how? This sweeping question has fascinated economists at least since Adam Smith published "The Wealth of Nations" in 1776. The existence of a large number of poor non-industrial nations—which contain most of the world's population—confirms the question's obvious importance today. If economic policy strongly affects the long-run rate of growth, then the cumulative implications of such policy for human welfare are such as to dwarf most other economic issues. This article argues that per capita growth will take place only if the after-tax productivity of capital and the rate of saving are high enough to keep up with population growth. Since capital productivity is affected by economic policy, policy determines not only the level of growth, but whether growth takes place at all.

Although it is conventional to speak of all non-industrial countries as "developing," less than half of these countries show clear evidence of consistent per capita GDP growth over the past three or four decades. The table classifies countries according to whether they have positive or negative per capita growth rates, and also whether their growth rates are "significant" in the statistical sense. "Significant" growth means that the underlying trend is sufficiently stronger than the year-to-year variation to allow one to confidently identify an upward trend. We find that only 41 out of 87 developing countries had significant positive per capita growth in the post-war period (by contrast, all Organization for Economic Co-operation and Development countries were found to have significant positive per capita growth over this period).

The implications of zero or negative per capita growth are ominous. Some African countries have per capita incomes below those that existed at independence nearly three decades ago. The daily calorie supply per capita declined over 1965–87 in 16 of the 37 low-income countries. Ten countries—all in Sub-Saharan Africa—have average levels of consumption below the poverty line suggested by the *World Development Report 1990*. Many Latin American countries are in the grip of the decade-long debt crisis, during which per capita growth has been negative. The average per capita growth rate of all developing countries in the 1980s was 0.1 percent. Comparing the performance of these countries to the booming economies of East Asia, one wonders whether economic policy could have made a difference to these sad outcomes.

An influential recent trend in the economics literature—the so-called "new growth literature"—has been to argue that indeed policy does have an important impact on growth. This strikes some as obvious. Yet, the claim is more profound than it may appear, because there are at least two good reasons—closely interrelated—why it may not be true. First, growth may be determined mainly by factors that do not respond to economic policies, such as culture. Second, the nature of economic production may be such that sustained growth is not possible without such non-economic factors as technological advances.

The role of culture

The idea that growth (and relative income levels) depends mainly on culture has a strong hold on popular conceptions. Certainly many have noticed the strong correlation between growth performance or income level and non-economic characteristics of nations, such as a temperate climate, European ethnic

origin, or a Protestant religious establishment. With the recent success of East Asian nations, the list of cultural characteristics supposedly favorable to growth has been broadened to include a Confucian ethical system. A more elaborate version of the cultural hypothesis is put forward by Michael Porter of the Harvard Business School, who argues that an array of business practices, corporate attitudes, geographic accidents, societal and institutional characteristics, and government behavior all determine the "competitive advantage of nations."

Facile generalizations about culture and growth are suspect on several grounds. First, the correlation between cultural characteristics and income levels implies little more than the obvious fact that industrialization has been geographically concentrated. Naturally, geographic neighbors share many cultural characteristics. There are good economic reasons why industrialization has been an uneven phenomenon. Industrial production will tend to congregate in certain zones if there are benefits to industrial producers of locating where other producers already exist. Differences in economic policy may determine where these clusters form. After the fact, an observer would notice the cultural characteristics of the industrialized zones and erroneously conclude that culture determined growth.

Culture is also suspect as the driving force behind growth because we observe great differences over time in a given country's growth. The Republic of Korea hardly grew in per capita terms over 1913–50, but grew over 4 percent per capita over 1950–89. Culture is very slow to change but growth performance is not—the correlation coefficient of growth rates across subsequent five-year periods is very low in the postwar period. In addition, culturally similar countries with distinct policies show very different growth rates, such as the two Koreas. Policies themselves could also be determined by culture. But the same problem remains—there is far more variability over time in policy than there could plausibly be in culture.

Technology and economic growth

The best-known traditional growth model—that of Nobel laureate Robert Solow—argues that economic growth is determined by technological change, which depends on noneconomic factors such as scientific discovery rather than economic policy. The logic is compelling. In Solow's approach, total production depends on labor and capital. Labor supply is determined by the rate of population growth, which is assumed not to respond to economic factors. Output can also be increased by investing in capital. However, faster capital accumulation cannot be a permanent source of growth, because as the ratio of capital to labor rises, less and less output is yielded by each additional unit of capital. Most economists find this plausible—if an office worker's productivity is raised by one computer, and a little more by a second computer, it is unlikely to be raised still further when the tenth computer arrives. Eventually, the additional production yielded by additional investment will be so low that per capita growth will approach zero.

Since healthy per capita growth is in fact observed in many countries over long periods, Solow proposed that technological change is the source of the continual increase in per capita incomes. Higher or more efficient investment would cause a one-time increase in output (and thus a temporary growth acceleration), but it could not raise permanently the rate of growth. Since the level and efficiency of investment is the only factor that responds to economic policy, this implies that policies have only a one-time effect on output, and not on the rate of growth.

Why should technological change not be responsive to policy? Again, the logic of Solow's approach is unavoidable. If technological change were responsive to policy, this would imply that it could be increased by greater economic inputs. But as these inputs increase relative to labor, the additional output they yield also falls to zero, so accumulation of these inputs could not be a source of per capita growth. Economic policy thus cannot affect technological change and overall growth.

The constraint posed by the limited supply of labor on economic growth is similar to that posed by another input that has long preoccupied economists: natural resources. Since the days of Thomas Malthus, doubts have been expressed about the long-run feasibility of continuous growth in view of the limited supply of resources such as agricultural land and hydrocarbon fuels. Analysis in the tradition of Solow has suggested that this constraint has been avoided through technological change (still unrelated to economic policy) that increases the productivity of land and other natural resources.

The "new growth literature" has reinstated an important role for policy by challenging the view that investment cannot be a source of growth. According to this view, external benefits and spillovers are associated with investment, which offsets the natural tendency of the productivity of capital to fall as the ratio of capital to labor rises. Paul Romer of the University of California at Berkeley points out the importance of goods such as technological blueprints that can be used an unlimited number of times once the initial investment is made. Romer has also suggested that the technological knowledge gained in the course of making an investment raises the productivity of capital. This argument was originally suggested by Nobel Laureate Kenneth Arrow, who called it "learning-by-doing." Robert Lucas of the University of Chicago has proposed that the benefit to the general level of knowledge from individual expenditures on education and training more than makes up for the diminishing productivity of capital as more and more is invested.

A more general view is that the accumulation of all of the inputs to production can be

Per capita growth performance of developing economies and territories, 1960–85

Negative growth	Positive but insignificant growth	Positive and significant growth
Afghanistan	Argentina	Algeria
Angola	Bangladesh	Barbados
Benin	Chile	Botswana
Bolivia	Congo	Brazil
Burundi	Côte d'Ivoire	Burkina Faso
Central African Republic	El Salvador	Cameroon
Chad	Ethiopia	China
Ghana	Fiji	Colombia
Guinea	Guatemala	Costa Rica
Guyana	Haiti	Cyprus
Madagascar	Honduras	Dominican Republic
Mali	Jamaica	Ecuador
Mozambique	Kenya	Egypt
Senegal	Liberia	Gabon
Somalia	Mauritania	Hong Kong
Sudan	Mauritius	India
Zaïre	Nepal	Indonesia
Zambia	Nicaragua	Jordan
	Nigeria	Korea
	Papua New Guinea	Lesotho
	Peru	Malawi
	Philippines	Malaysia
	Rwanda	Malta
	Sierra Leone	Mexico
	The Gambia	Morocco
	Togo	Myanmar
	Uganda	Pakistan
	Uruguay	Panama
		Paraguay
		Singapore
		South Africa
		Sri Lanka
		Suriname
		Swaziland
		Syria
		Taiwan Prov. of China
		Tanzania
		Thailand
		Tunisia
		Turkey
		Zimbabwe
16	28	41

Source: Summers and Heston data set, *Review of Income and Wealth*, March 1988.

influenced by policy. Although the rate of population growth typically varies only within a narrow range, the productive contribution of labor can be raised virtually without limit through investment in education, training, and health. Investment in this kind of "human capital" is conceptually no different from investment in "physical capital," such as plant and machinery. Moreover, the kind of technological knowledge that is treated as impervious to economic incentives in traditional growth analysis can also be thought of as "capital" that can be accumulated through investment in research and development. Although developing countries may use mainly technologies from industrialized countries, they must still invest in adaptation of foreign technology to local conditions, a process whose costs are often underestimated. Finally, the effective contribution of natural resources can be increased through investments in improving their productivity (such as land improvement), or manufactured products can be substituted for them. This view of growth implies that, far from being limited by "non-economic" factors such as population growth, natural resource availability, or technological progress, growth responds permanently to the quantity and quality of investments made in each country.

How policy influences growth

Given the focus on technology and human capital in the new views of growth, governments may be tempted to identify and subsidize the right kinds of investment—those they think have extra "learning-by-doing" payoffs for technological progress or labor productivity. Unfortunately, there is usually little prior information about what kinds of investments will produce large technological or productivity benefits. Technological advances and the adaptation of foreign technology are notoriously characterized by surprises—advances are made where they are least expected, while highly touted technologies too often prove disappointing. Governments often make things worse by spending resources—resources that must be raised from taxes on private initiative—on artificially favoring "high technology."

Governments can play a more positive role by creating an atmosphere where private investors, both domestic and foreign, have the incentive to invest in increasing productive capacity. Such an atmosphere is one where individuals can keep most of the rewards from their investment in new productive capacity, whether it be their own education, the adaptation of a new technology, the improvement of their land, or traditional investment in plant and equipment. This requires clearly defined property rights, low marginal tax rates on income, market-determined prices, and a stable macroeconomic environment.

In such an environment, the private sector will be able to respond to rapidly changing productive opportunities. A healthy level of investment will itself generate new investment opportunities, as investors learn about new technologies during the process of investment. The technological advances that are so spawned will tend to relax the constraints imposed by labor and land, as technological advances economize on the use of such fixed inputs. For example, the Green Revolution in the developing countries occurred as farmers responded to incentives to adopt new and highly productive technologies that economized on the use of land.

Conversely, high implicit or explicit taxes on the rewards from making new investment can severely depress the amount of investment that takes place. With low investment, there is little opportunity for learning about or adapting advanced technologies. Low investment can also worsen the problem of environmental degradation. If there is not sufficient incentive for investing in advanced land-saving technologies, primitive technologies will lead to deforestation and soil erosion. Those developing countries where per capita growth is absent—mostly in Sub-Saharan Africa—are generally those where political instability and traditional ownership systems imply high uncertainty about property rights, and marginal tax rates (sometimes implicit rather than explicit) in the modern sector are high. Many of these same countries are also experiencing severe deforestation.

However, the new growth theory also raises the interesting possibility that a country's development depends in part on where it starts. There may be large "start-up costs" to building a market infrastructure and forming an educated entrepreneurial elite or educated labor force. Poor countries—such as those in Sub-Saharan Africa—may stay poor because they are unable to bear these start-up costs. To get out of such a trap may require foreign assistance, but even this assistance is unlikely to be effective unless policies are favorable to growth, as described earlier. Even then, initial progress may be slow because of the initial low level of education and infrastructure, and the low propensity to save at low incomes. Over 1960–89, there were 25 decade-long episodes of national per capita growth over 5 percent, but none of them began at per capita incomes below $500 (in 1985 prices).

Governments can also play a positive role by themselves investing in capital that is unlikely to be provided by the private sector in a market economy, such as legal systems, basic health and education, roads, water supply, and electrical distribution systems. Such investments raise the productivity of private capital and thus increase the incentive for private investors. Public investment in railways and highways was instrumental in the development of many countries, from the United States in the 19th century to Mexico and Colombia in the 20th. The lack of such transportation investments is said to have severely hampered development in countries like Myanmar (formerly known as Burma). Similarly, the lack of sufficient public infrastructure in Nigeria has lowered private capital productivity, because firms are forced to invest in their own inefficient electrical generators and water treatment plants.

Efficiency and growth

As mentioned earlier, policies that cause inefficiency—less output for a given amount of inputs—have been traditionally thought to lead to a one-time loss of output, but not to a permanently lower rate of growth. Calculations of this one-time loss seldom exceed 2 percent of GDP. On these grounds, many have argued that inefficient policies—such as controls on prices and interest rates, high import tariffs or restrictive import quotas, and differential tax rates for different activities—are not particularly critical to a country's long-run prospects. However, this view is incorrect, according to some of the new perspectives on growth. Less output for a given amount of inputs implies that there is less left over to reinvest in further accumulation of inputs, if all inputs can indeed be increased by investment. The drop in the amount available for investment permanently lowers the growth rate. The losses due to inefficient policies are compounded over time until the sacrifice of a country's long-run welfare becomes very serious indeed.

Inefficient policies such as subsidies, price controls, and trade intervention imply that some investment will be directed into activities that have a low economic return, lowering

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the average productivity of investment. With a rapidly growing labor force, as in many developing countries, low productivity of investment may imply an increase in income just sufficient to keep up with the increase of the population. Insufficient income is left over for increased capital accumulation, so the economy would remain stuck at a low income level. Conversely, efficient policies foster investments in activities with the highest returns. With high productivity of investment, income growth can exceed that of population sufficiently to allow part of the additional income to be reinvested, establishing a virtuous circle of growth.

A particular type of inefficiency common in developing countries reflects policies that add to the diversion of resources to a parallel or underground economy. These include high taxes in the formal sector that tend to drive production underground where it can escape taxes. Quantitative allocation of inputs at subsidized prices causes resources to be invested in lobbying for these inputs. Controls on the financial system combined with macroeconomic instability tends to attract resources into unproductive financial engineering and speculation. The only good news about the response of the informal or traditional economy is that it can limit the damage resulting from misdirected government policies by evading them, even if the damage still will be great. For example, the interventionist government of Idi Amin caused formal sector output in Uganda to fall at 2 percent per year over 1970–78, but the traditional sector continued to muddle along with 3.4 percent growth per year. A similar example is Peru in the last two decades, where Hernando de Soto in *The Other Path* has documented a thriving underground economy in the face of complex controls over the modern economic sector.

The evidence that inefficient policies have permanent effects on growth is substantial. Numerous studies have found that trade intervention tends to lower growth. For example, Argentina grew rapidly in its neutral, outward-oriented phase prior to 1930; it has stagnated as it turned inward. Outward-oriented Thailand and Malaysia have outperformed inward-looking India and Myanmar in Asia. Growth in Brazil and Colombia accelerated with opening in the 1960s. Many studies have found that higher government consumption—implying higher taxes, spent for unproductive purposes—is associated with lower growth. Other studies have found that measures of macro instability, such as high and variable inflation, are associated with lower growth. Finally, there have also been findings that political repression or instability tends to lead to lower growth, perhaps because of the implied uncertainty about keeping the rewards to one's investment.

The responsiveness of growth to economic policies suggests there is hope for reversing the poor growth performance experienced by most developing countries in the 1980s. Multilateral institutions such as the World Bank and IMF can contribute to the revival of growth by providing capital to help cover "start-up costs" and by providing support for reform of inefficient government policies, the achievement of macroeconomic stability, and the creation of essential public infrastructure. ■

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Governance and the Development Process

While much debated, better governance is being seen by external agencies and domestic partners as essential for sustainable development

Pierre Landell-Mills and Ismail Serageldin

Governance—the exercise of political power to manage a nation's affairs—is being increasingly identified as a critical determinant of the economic performance of developing countries. The dominance of quantitative economics in the development debate in recent years is seen as having led to the neglect of crucial issues of political economy and the role of institutions. An interdisciplinary approach may lead to a better understanding of the factors blocking development.

The upsurge of interest in governance reflects five reinforcing perceptions. First, the success of market economies is being contrasted with the failure of centralized planning. Second, in many countries, popular discontent at the abuses of authoritarian regimes is spurring a search for more democratic and responsive forms of government. Third, the inefficiencies of state enterprises and public agencies at a time of fiscal crisis have prompted a re-examination of the role of the state. Fourth, there is heightened concern that widespread corruption is siphoning away both domestic and foreign aid resources. And fifth, a resurgence of problems of ethnicity is greatly complicating the task of nation building.

In the World Bank's 1989 report on Sub-Saharan Africa, "From Crisis to Sustainable Growth," issues of governance were broached with unprecedented frankness. Governance was seen as encompassing a wide range of concerns: the effectiveness of a state's institutional arrangements, decision-making processes, policy formulation, implementation capacity, information flows, and the nature of the relationship between rulers and the ruled.

The Bank's report recognized two distinct but intimately intertwined dimensions of governance: one is political (related to the degree of genuine commitment to the achievement of good governance and the need to arbitrate equitably among competing interests), and the other is technical (related to issues of efficiency and public management).

State and society

The current widespread trend toward the disengagement of the state from productive activities, while re-emphasizing the state's crucial responsibilities in providing public, social, and infrastructural services and creating an enabling environment for private operators, is having a major impact on issues of governance. Privatization and economic liberalization significantly reduces the power of state bureaucrats. So does the new popular policy of decentralization of governmental activities that "empowers" local communities (i.e., gives them more opportunities to decide on matters that affect them), who are then expected to assume greater responsibilities for delivery of public services.

But empowerment will not assure better governance unless the responsible public agencies are competent. This brings to the fore issues of technical management and acquisition of skills. It also highlights the need for institution building in the broadest sense and for adequate public investment in human resource development.

This article examines the issues of governance and development from the perspective of the World Bank accumulated with many years of operational experience in Africa and elsewhere. It does not necessarily reflect the views of the World Bank.

The state plays an indispensable and potentially creative role in establishing the environment for economic activity, thereby determining the distribution of assets and benefits. This role also implies the possibility that the apparatus of government may be captured by a self-serving elite to plunder a nation's wealth, thus obstructing development.

In most societies, deep social divisions must be reconciled if the conditions for good governance are to be established. Governance often involves compromises and consequently even a competent and well-intentioned regime may not be able to fully achieve the conditions for good governance. Unfortunately, ethnic disputes are at times deliberately exaggerated to mask the rapacious actions of the ruling elite and their supporters. However, sheer lack of capacity also limits the ability of public authorities to fulfill their responsibilities, even when they are fully committed to the task of nation building.

Economic and social progress are not the only objectives of good governance. Civil liberty and the ability to participate in the political system can also be viewed as elements of a full and meaningful life that should contribute to the well being of individuals and the development of societies.

Sovereignty and interdependence

Although the quality of governance is a key determinant of a country's development

performance, donors have been reticent in the past to address issues of governance lest they be seen as interfering in a country's internal affairs. However, in an increasingly interdependent world, no state can develop in isolation from the global order. Poor countries are particularly vulnerable to events in the rest of the world. Consequently, they have come to depend heavily on the international community for financial and technical assistance for their development. As donor governments and their publics are becoming increasingly aware that their assistance is greatly affected by the quality of governance in the recipient countries, they have become more and more concerned to promote better governance. This has raised the issue of sovereignty.

The concept of sovereign nations underlies all aspects of the present international order. Nonetheless, sovereignty is constrained by a web of international, multilateral, and bilateral agreements that create mutually binding obligations within an established system of international law. Since poor countries generally have fragile polities and weak systems of accountability, with few autonomous institutions and little countervailing power to that exercised by the government at the center, external donors and development agencies have the potential to exert considerable influence in promoting good or bad governance. This can embroil them in fundamental issues, such as the link between government and the governed, and between state and society, which are both culturally and politically sensitive.

Given the risk of ethnocentric and cultural bias, external agencies need to be extremely cautious in proposing specific solutions for improving governance. Through dialogue and analysis, options can be examined, but ultimately it must be the responsibility of the sovereign state to determine its own homegrown solutions. For their part, external agencies, within the legal limits of their statutes, have an obligation to judge whether those solutions appear credible, to assist and monitor their implementation, and to modulate their financial assistance accordingly.

Fostering better governance

Although there are many different views as to what constitutes good governance, some of which are ethnocentric or culturally determined, it is possible to specify a minimal core of characteristics that are generally agreed upon. These are discussed below. In large measure, these derive from, or are related to, the Universal Declaration of Human Rights, which can be viewed as representing the moral consensus of the international community of nations.

Political accountability. While there is no demonstrable direct correlation between development and democracy, to be effective agents of development, governments need to be perceived as legitimate through some form of political accountability. The classic mechanism for ensuring political accountability built into most constitutions is to subject the political leadership (and even other public officials at the national, provincial, and local levels of government) to a credible electoral process with limited periods in office. External agencies can assist, and indeed are currently assisting, in promoting political accountability in various ways. First, by helping to mediate conflicts and second, by helping to organize and monitor elections. Occasionally, donors have acted by withholding external financial support from governments that have clearly lost popular support to the point where they cannot govern effectively.

Freedom of association and participation. Closely allied to the preceding concern is the question of whether a country's citizenry enjoys the freedom to organize according to specific interests. Institutional pluralism can be seen as an important mechanism for diluting and disseminating exclusive central political power. But it is not always conducive to stability, particularly where people have shown a strong tendency to organize along ethnic lines.

At the national level, freedom of association means the freedom to establish religious groups, professional associations, women's groups, and other private voluntary organizations to pursue political, social, or economic objectives. Clearly, it is the latter three that would be of principal interest to external agencies concerned with assisting development. Donors can provide critical financial and technical assistance to such organizations, which can empower groups that are otherwise marginalized within the existing political and economic system. Surprisingly little has been done in this sphere, mainly because this aspect of institution building has not attracted significant donor attention.

The situation is different at the local level. Considerable assistance has been successfully provided by donors to grass roots community organizations and cooperatives, often channeled through nongovernmental organizations (NGOs). The involvement of foreign NGOs may reduce the risk of corrupt local counterparts, but ultimately systems of accountability must be built into the institutional design of each organization (e.g., the self-policing of cooperatives via cooperative unions, as happens in the Cameroonian credit union movement).

This leads to the broader role of external agencies in promoting the active participation of the ultimate beneficiaries of development projects and programs that they finance in both design and implementation. There is now a wide consensus in the development community on the desirability of such participation and few governments would openly oppose the concept. Nonetheless, even for regimes that were not notably repressive, such grass-roots "democratic" initiatives have frequently been regarded as potentially threatening.

A sound judicial system. There are few aspects of governance where consensus is more firmly established than on the need for an objective, efficient, and reliable judicial system. An essential concomitant is the creation of honest law enforcement agencies and a speedy and affordable court administration.

Some external aid agencies have been reluctant to assist in strengthening judicial systems because the link to development is seen as indirect. More particularly, it is feared that involvement in law enforcement will risk association with inequitable or unjust law enforcement. While very real, these risks can be exaggerated compared to the importance of instituting legal accountability. A sound judicial system is a prerequisite for effective political and bureaucratic accountability.

Bureaucratic accountability. To be fully effective, measures to achieve political and legal accountability need to be accompanied by additional arrangements to make bureaucracies more accountable. This requires monitoring the performance of public agencies and officials and an effective, and politically autonomous system dedicated to correcting bureaucratic abuses and inefficiencies.

A critical dimension of bureaucratic accountability is transparency. This implies, for example, making readily available for public scrutiny all public accounts and audit reports (including those of all parastatal organizations), a practice that many public officials strongly resist and donors increasingly demand. So basic is this to the concept of good governance that the question of sovereignty should not arise. Every citizen, as well as every donor, has a right to expect transparency in the management of public funds.

At the core of bureaucratic (and political) accountability is the need for rigorous systems of financial management and procurement, with swift and tough penalties for malfeasance. Sound methods of accounting and auditing, and of customs duty and other revenue collection, are readily available. The same is true for procurement. External aid agencies have been too often tolerant of financial abuse and indeed have at times indirectly shown complicity in corrupt practices by responding to improper pressures from their

own suppliers. The financing of unwarranted "commissions" by export credit agencies is but one example.

Fostering markets and helping to create quasi-market mechanisms (e.g., contracting out the provision of services such as refuse collection or road maintenance, through competitive bidding procedures) is also a useful way to foster accountability, and donors can usefully support such initiatives. Other instruments that can be considered include the appointment of ombudsmen and watch-dog committees, holding public hearings, and conducting opinion polls. In addition, loosening administrative controls and simplifying the regulatory framework may facilitate competition and reduce the opportunities for corruption.

Freedom of information and expression. Openness is crucial for accountability. The need for the free dissemination of information goes well beyond facilitating accountability. Efficient markets depend on good information as does the exercise of freedom to participate in economic and political decision-making. Unfortunately, vital data such as that relating to national accounts, trade, balance of payments, employment, cost of living, household expenditures, and the like are frequently withheld by governments from their citizens, and yet openness is essential for a soundly based public debate of the performance of a government and its agencies. Informed policy discussions are at the heart of a healthy political process. Moreover, good social and economic data are important for business planning, while their absence is a hindrance to development.

There are many ways for external agencies to assist in the collection and dissemination of economic and social data and other information needed for informed public debate. Yet, their efforts in this field so far have been slight. The need is for sustained and coordinated programs to assist in building national capacities for data collection and dissemination, as well as to encourage public debate by financing seminars and public information programs. It is not enough for the information to be available; analysis and research are also needed, and this should not be a monopoly of the state. Donors can contribute to this process by funding independent research organizations and by supporting the autonomy of the universities.

Capacity building. Good governance requires not only political commitment and systems for ensuring accountability, the sound administration of justice, and freedom of information, but also competent public agencies. This is an area where external agencies have been active for many years, but still with poor results.

The failure of external assistance for public management is partly because political commitment was lacking, but it is also due to the poor design of the interventions. Two underlying features merit attention: first, capacity building is a long-term venture and external agencies need to evolve approaches that will enable sustained long-term support programs to be adopted. Second, external agencies cannot be fully effective unless they adopt a collaborative approach in partnership with the governments concerned. Much is to be gained from a more concerted effort to help governments define clearly a single comprehensive program of administrative reform and capacity building that all concerned can support. Examples of such programs abound—including in Ghana, Gambia, the Central African Republic, and Madagascar, to name but four in Africa supported by the World Bank. The African Capacity Building Initiative—to build a critical mass of African policy analysts and economic managers and to set up or rejuvenate local management institutions—recently launched by a group of donors is a good example of what can be done.

Roles of external agencies

There are many different categories of external agencies and each has its distinct role in fostering better governance depending on its mission and mandate. External agencies generally can more easily address the *technical* aspects of governance, but by no means exclusively so, depending on their nature.

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International and multilateral institutions. Since, except in the case of the newly created European Bank for Reconstruction and Development, the statutes of international and multilateral institutions expressly rule out political considerations, the focus of their action must be on the technical aspects of governance. Thus, the World Bank and UN Agencies have been active in assisting countries in strengthening their public administration (including the administration of justice), reforming public enterprises, and building institutional capacities. This is entirely the right focus, though much more could be done to improve the effectiveness and sustainability of technical assistance in this area. In addition, there has been increasing effort to promote institutional pluralism by fostering local government, NGOs, and grassroots organizations with the objective of mobilizing local human and financial resources in the provision of community services. This support for institutional development can usefully be extended to assisting the growth of other private voluntary organizations, such as professional associations and chambers of industry and commerce.

Bilateral agencies. Such agencies may choose to use their influence to promote political accountability and respect for human rights. This would be most effective if it were focused particularly on encouraging the rule of law. Helping to organize fair elections by furnishing both resources and observers is another possibility. The practice of supporting particular political parties, however, clearly undermines good governance by distorting the political process.

Important opportunities exist for bilateral donors to promote honest government by channeling funds in ways that reduce the chances of corruption. This could be done by untieing aid from procurement restricted to the donor country, by insisting on open competitive procurement procedures, and by outlawing bribery or the payment of excessive "commissions" by their suppliers. The United States has taken the lead on this, but other members of the Organization for Economic Co-operation and Development have so far been reluctant to follow.

Nongovernmental organizations. There are two special contributions that industrial country NGOs can make to promote better governance. One is to support developing country NGOs and hence foster pluralism. The second is to campaign against human rights abuses in a manner that is seen to be completely apolitical. Amnesty International's efforts in this area are well known.

Another category of activities where NGOs can play a key role is to foster twinning ar-

rangements or networks between groups in different countries with common concerns or shared missions—this could cover professional associations, trade unions, chamber of commerce and industry, and other special interest groups.

Persuasion not coercion

While recognizing that the world order remains strongly anchored to the principle of the sovereignty of nations, external agencies can contribute significantly to fostering good governance in those countries seeking their assistance. Their role in this regard is likely to generate much debate internally and in the countries that they seek to help. As a general principle, institutional reforms are unlikely to be sustained unless they are home-grown and underpinned by a genuine political commitment. Thus, it is self-evident that a collaborative approach is likely to be more effective than coercion over the long run. To be sustainable, reforms cannot be imposed. However, as has been the case in the context of structural adjustment lending, to overcome inertia, it is sometimes useful to set a timetable for specific agreed actions (considered to be crucial for the achievement of program objectives) linked to the release of external funds. Moreover, in certain instances, the weight of the donor community may be needed to counterbalance the private agendas of the ruling elites.

The effectiveness of external interventions will be a function of their sensitivity to local conditions and the degree of popular local support that is engendered. Although close coordination among agencies is a prerequisite for a coherent approach, the success of external interventions is likely to depend mainly on persuasion and on the progressive evolution of internal power structures brought about by education, income growth, and pluralistic institutional development.

The many facets of good governance are not all conceptually independent nor are they invariably complementary. Conflicts may easily arise, at least in the short run. If open and participatory processes are pursued, for example, government policies may temporarily become less predictable and efficiency can be reduced. Over the longer term, however, most links may be mutually reinforcing.

The pace of change is likely to be strongly influenced by economic circumstances. Economic crisis can precipitate radical political change and lead to a rapid change in the perception of what is and what is not possible. It can also provide an opportunity for bold and rapid transformation of societies. A number of developing economies have begun to take that opportunity. Their experience may serve to guide others along the path to good governance. ■

A detailed paper on this topic was presented by the authors at the World Bank Annual Conference on Development Economics in April 1991 in Washington, DC. The proceedings of the conference will be published in a supplement of the World Bank Economic Review *and the* World Bank Research Observer *in 1992.*

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Exchange Rate Policy and the IMF

How, within its broad responsibilities, the IMF assists its members in choosing an exchange arrangement and implementing exchange rate policy

David Burton and Martin G. Gilman

Exchange rate policy is of more than academic interest to many people. After all, the exchange rate—a key price in any economy—affects the cost of imported goods and the profitability of export industries, influencing the rate of inflation, output, and employment. The choice of exchange arrangement—that is, whether the exchange rate is pegged, floating, or something in between—also influences the extent to which an economy is affected by booms and recessions abroad and defines the scope for independent monetary policy at home.

It is not surprising, therefore, that exchange rate policy has long been a controversial subject, no less so in recent years when practical questions about exchange rate policy have come to the fore. Eastern European countries have introduced new exchange systems as part of their radical programs of structural reform. Participation in the Exchange Rate Mechanism of the European Monetary System has expanded, with the members seeing advantages in exchange rate stability. And many African and Latin American countries have been questioning inflation-linked devaluations, which often seemingly lead to ever higher rates of inflation in the absence of sound domestic policies.

At the center of the debate sits the IMF, which, under its founding Articles of Agreement, shoulders major responsibilities in this area. It is charged with:

- overseeing the international monetary system in order to ensure its effective operation;
- ensuring that members collaborate with it and other members to assure orderly exchange arrangements and promote a stable system of exchange rates; and
- helping to establish an unrestricted multilateral payments system; indeed, the IMF is endowed with jurisdictional responsibility for limiting the use of exchange restrictions by member countries.

This article attempts to clarify these extensive responsibilities, as well as to explain how the IMF assesses the appropriateness of exchange rate policy and formulates its policy advice. As developed and developing countries alike ponder how best to conduct exchange rate policy, the IMF is finding that there is no single policy prescription—rather, advice must be tailored to fit the policy priorities and institutional realities of the country concerned.

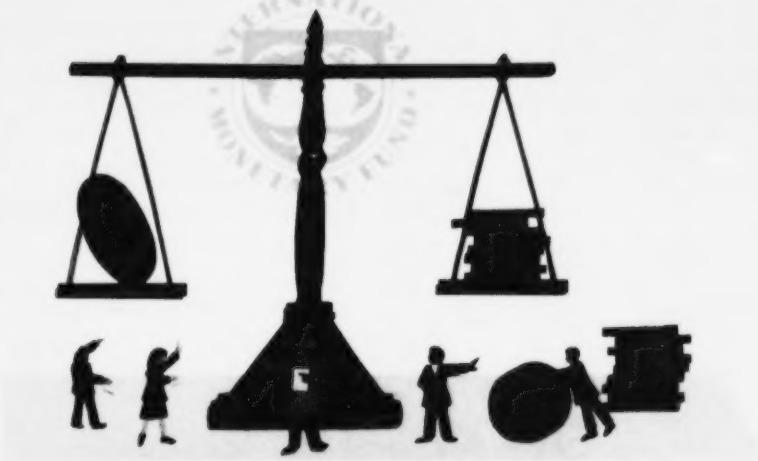
Evolution of arrangements

Although exchange rate policy cannot be viewed in isolation from other macroeconomic policies, narrowly defined, it concerns the way in which the domestic currency price of foreign currency is determined. From the time of the establishment of the IMF until 1973, the international monetary system was based on par values—the original Bretton Woods system. With a few exceptions, member countries maintained a par value for their currencies in terms of gold, either directly or indirectly through a peg to the US dollar. Under this system, a par value could only be changed if, after consultation with the IMF, it was established that exchange rate action was necessary to correct a "fundamental disequilibrium."

With the breakdown of the Bretton Woods system, as a result of growing financial strains and external imbalances, the world moved to what has become known as a system of "generalized floating." This implies that there is no numeraire, or anchor, for the system as a whole, a role previously played by gold. Even so, individual countries are free to peg their currencies to any other currency or basket of other currencies, such as the IMF's Special Drawing Right (SDR), or to allow the exchange rate to vary according to market forces or some other type of adjustment mechanism. The freedom of IMF members to choose their exchange arrangement was formally authorized in the Second Amendment to the IMF's Articles in 1978. At the same time, the amended Articles emphasized the need for member countries to direct their economic and financial policies at fostering orderly underlying economic conditions, orderly economic growth, and reasonable price stability—all seen as essential for maintaining a stable exchange rate system.

Since the mid-1970s, there has been a tendency among member countries to adopt or maintain exchange regimes that in principle allow greater flexibility. While currency pegs accounted for 82 percent of the arrangements in 1975, they declined to 72 percent in 1983, and 66 percent in 1990 (these include the CFA franc zone and the Common Monetary Area—both in Africa—and the Eastern Caribbean Central Bank). The growing category of countries maintaining more flexible arrangements embraces a wide variety of schemes. Most of them follow a "managed" float (i.e., the authorities adjust the rate periodically in a discretionary manner), although the actual flexibility of the rates ranges from those that behave as if they were pegged to those where the nominal rate can appreciate or depreciate relatively freely. Other types of flexible arrangements include: (1) the EMS, where members' rates are pegged to each other but the system floats independently against outside currencies; (2) independent floats, such as those followed by Japan and the United States, where the official exchange rate is determined essentially by the market with only very limited efforts at management or intervention; and (3) adjustment of the rate according to a predetermined set of indicators, as is done by Chile and Madagascar.

One complication, however, is that a large number of developing country members —about 40 in 1990—maintain dual or multiple official exchange markets (among industrial countries, Belgium and Luxembourg terminated their long-standing dual market in May 1990). In addition, parallel exchange markets, which differ in the extent to which they are officially tolerated, exist in about 70 member countries where access to the official exchange market is restricted. To the extent that a significant proportion of external trans-



actions take place at parallel exchange rates, the classification of the official arrangement may in some cases thus be misleading.

Role of the IMF

Member countries are obligated to notify the IMF of their choice of arrangement, information that is then used as part of the bilateral and multilateral surveillance process. The IMF's Executive Board regularly devotes sessions to exchange rate policy, with discussions tending to focus on developments in industrial countries. Exchange rate developments are also analyzed in the semi-annual *World Economic Outlook*, which provides the basic analytical framework for the IMF's review of the world economy and the exchange system as a whole and which is discussed by the Executive Board. On the national level, the main vehicle for surveillance is the Article IV consultation, a sort of annual check-up for member countries, which usually concludes with an Executive Board discussion of the country's economic situation and policies, with particular attention given to exchange rate policy. The Board's views are then conveyed to the member's Government in the form of a summing up by the Chairman of the Executive Board as well as by its Executive Director.

The advice provided by the IMF, in terms of the appropriateness of exchange rate policy, reflects not only the diverse economic structures and varied exchange arrangements of members but also the IMF's overall objectives: (1) to help promote orderly growth and reasonable price stability in individual member countries; (2) to help members correct maladjustments in their balance of payments; and (3) to promote the expansion of world trade, as a means of helping to create favorable conditions for sustained economic growth and high employment in member countries.

Viewed from this broader perspective, exchange rate policy has to be judged in the context of a comprehensive analysis of a country's economic situation. Such an analysis allows the IMF to assess the consistency of exchange rate policy with a country's external and domestic policy goals. And it makes possible an evaluation of whether a country's exchange rate policy can be maintained without the imposition or the tightening of exchange (and trade) restrictions, which would impede the international free flow of goods and capital and tend to distort relative prices and reduce economic efficiency, thereby adding to inflationary pressure at home.

While assessments cover a broad range of policies and have devoted increasing attention to structural issues, they typically focus on the stance of fiscal and monetary policy, because over the years, the IMF has found that disciplined domestic financial policies are the necessary prerequisite for the maintenance of relatively stable exchange rates and the avoidance of restrictions. A review of recent individual consultations with members suggests that assessments of exchange rate policy, broadly defined, are more likely to be unfavorable in cases with relatively large fiscal deficits and/or rapid credit expansion. In this setting, unsustainable balance of payments deficits are likely to emerge, which without policy correction, would lead to the intensification of exchange restrictions, the emergence of a parallel exchange market, rising inflation, and a depreciating exchange rate in some combination, depending on the nature of the exchange arrangement.

Policy advice

The IMF's exchange rate policy advice roughly falls into four general areas:

Choice of exchange arrangement. While economic theory provides some general principles on which to base a choice of an optimal exchange arrangement, these are difficult to apply in practice as they depend on both the policy objectives of the authorities and the nature of the shocks to which the economy is prone. (For a detailed discussion, see publication listed in box.) There is also an important unresolved issue as to whether a pegged rate, by providing a visible nominal anchor, is more conducive to the maintenance of financial discipline than a more flexible arrangement. Indeed, the available evidence suggests that both flexible and pegged rates can be consistent with price stability.

In general, therefore, IMF staff have abided by a member country's preferred arrangement, and tailored their overall policy advice accordingly. For example, in countries where a particular exchange arrangement may rule out changes in the exchange rate (e.g., members of a currency union), the burden of any external adjustment required must fall on budgetary and monetary policies, incomes policy, and structural measures that would help to contain costs and improve competitiveness. Where an exchange rate change is possible, the staff may recommend that appropriate financial policies be used in combination with an exchange rate depreciation to achieve an improvement in the balance of payments.

In some cases, the economic and institutional circumstances and policy priorities of a country may suggest a particular exchange arrangement. For example, a pegged exchange rate as a nominal anchor may be attractive when reducing inflation is particularly important, whereas greater exchange rate flexibility may be necessary if international reserves are at a low level and strengthening the balance of payments is a top priority. The role played by such considerations is illustrated by the different exchange rate policies adopted by Eastern European countries that have recently embarked on radical reform programs.

In Poland, for example, in late 1989, when the stabilization and reform program was being formulated, price increases were spiralling out of control, making the reduction of inflation a top priority. At the same time, a substantial proportion of domestic financial assets were denominated in US dollars, reflecting the erosion of the zloty's value.

For a fuller discussion, see "Exchange Rate Policy in Developing Countries," by Bijan Aghevli, Moshin Khan, and Peter Montiel, IMF Occasional Paper No. 78, *$15 ($12 for academic orders), available from IMF Publication Services, Washington, DC 20431, USA.*

Initially, the authorities devalued the zloty, as a way of ensuring adequate competitiveness in light of price and trade liberalization. But then the exchange rate was pegged to the US dollar, as it appeared that such an arrangement—supported by restrained monetary and fiscal policies—could be effective in providing a nominal anchor for prices and restoring confidence in the domestic currency. In May 1991, after inflation had been substantially reduced, the zloty was devalued by 14 percent and pegged to a basket of five currencies.

The use of a pegged exchange rate as a nominal anchor was feasible in Poland's case because its international reserves were at a reasonable level when bolstered by the availability of a secondary line of defense in the form of a $1 billion stabilization fund, provided by a group of countries to help support the reform effort. Yugoslavia followed a similar approach in late 1989 when, as part of its adjustment program, the dinar was pegged to the deutsche mark. Czechoslovakia also adopted a similar exchange rate strategy in early 1991, as part of its radical reform program, pegging to a basket of currencies after an initial devaluation, even though its reserve position was somewhat less strong.

By contrast, Bulgaria and Romania, both of which embarked at the start of 1991 on bold reform programs supported by IMF arrangements, adopted flexible exchange rate systems. In both countries, the choice of a floating rate—Romania also temporarily maintained a pegged rate for certain transactions—was conditioned by the very low level of international reserves at the start of the program, the limited availability of external financing, and, given the extent of the distortions to be removed under the program, major uncertainties about what would be a sustainable exchange rate.

While the IMF recognizes that a variety of flexible exchange rate systems may be appropriate in certain circumstances, there has been growing concern that policies, which target the real exchange rate—adjusting the nominal exchange rate to offset any deviation of domestic inflation from that in partner countries—may leave an economy without a nominal anchor and could lead to high inflation, particularly if financial policies are lax. The objective of real exchange rate targeting is to preserve competitiveness, thereby protecting the balance of payments. But a danger is that the targeted level for the real exchange rate may be too low—it is difficult to know what the equilibrium real exchange rate should be, especially as it is affected by many domestic and foreign shocks—with a nominal depreciation resulting principally in higher prices. The higher prices in turn may trigger a further depreciation of the exchange rate under the real rate rule, possibly leading to a spiral of rising inflation and further depreciations. To the extent that increases in the money supply can be fueled by a balance of payments surplus, such a spiral could arise even with non-accommodative credit policies. Similar problems can arise if exchange rate policy aims to limit the differential with a parallel exchange rate to less than a target amount.

Appropriateness of a particular rate under a pegged or managed arrangement. In evaluating pegged exchange rate systems, the question frequently arises whether an adjustment to the level of the peg is needed, especially in cases where a country has a current account deficit too large to be financed on a sustained basis. The assessment generally depends on the magnitude of the required reduction in the deficit and on the downward flexibility of prices and wages. An improvement in the current account usually requires a reduction in the relative price of nontraded to traded goods, which is difficult to achieve without a depreciation in the exchange rate if wages and prices are sticky downwards.

Generally, where the imbalance is relatively small, the IMF advises that reliance should be placed on fiscal and monetary policy to reduce domestic demand relative to output, thereby restoring a sustainable balance of payments position free of restrictions on current account transactions. However, where the needed cut in the balance of payments deficit is relatively large, and especially when the flexibility in prices and wages is judged to be limited, an exchange rate depreciation may be recommended—again in the context of disciplined financial policies—so as to limit the cost of the decline in domestic absorption in terms of its adverse effect on output and social dislocation. A depreciation can achieve this by helping to switch demand from imported to domestically produced goods and to encourage export production. Experience with adjust-

Prevailing exchange rate regimes and their frequency

(The number of countries in each category at end-March 1991 is shown in parentheses.[1])

Peg: single currency (46). The country links its exchange rate to the value of a major currency—usually the US dollar or the French franc—but does not change the rate frequently. About one half of all developing countries have such an arrangement.

Peg: currency composite (40). A composite, or basket, is usually formed by the currencies of major trading partners to make the pegged currency more stable than if a single-currency peg were used. Currency weights may be based on trade, services, or major capital flows. About one fourth of all developing countries have composite pegs.

Flexibility limited vis-à-vis single currency (4). The value of the currency is maintained within certain margins of the peg. This system is currently used by four Middle Eastern countries.

Flexibility limited: cooperative arrangements (10). This applies to countries in the exchange rate mechanism (ERM) of the European Monetary System (EMS) and is a cross between a peg and a float; EMS currencies are pegged to each other, but float otherwise.

More flexible: adjusted to indicator (5). The currency is adjusted more or less automatically to changes in selected indicators. A common indicator is the real effective exchange rate that reflects inflation-adjusted changes in the currency vis-à-vis major trading partners. This category also includes cases where the exchange rate is adjusted according to a preannounced schedule.

More flexible: managed float (22). The central bank sets the rate, but varies it, sometimes frequently. Adjustments are judgmental, usually based on a range of indicators, such as international reserves, the real effective exchange rate, and developments in parallel exchange markets.

More flexible: independent float (27). Rates are market-determined. Most developed countries have floats—partial for the EMS countries—but the number of developing countries included in this category has been increasing in recent years.

[1] *The list excludes Democratic Kampuchea, for which no current information is available. For members with dual or multiple exchange markets, the classification is according to the major market.*

ment programs over the years suggests that an exchange rate depreciation is indeed effective in cushioning output and does not support the argument that a devaluation is on balance contractionary.

Even though a devaluation may help to sustain output, it invariably has implications for income distribution. In particular, while an exchange rate depreciation typically raises the earnings of the rural poor engaged in export production, it may also lower the real incomes of the urban poor employed in the production of nontradables, at least in the short run. Given that some poverty groups may be hurt by a devaluation as well as by other adjustment measures, the IMF strongly encourages its members to take steps to protect the poor, for example by targeting subsidies and social expenditures on them.

Removal of exchange restrictions. A central element of the IMF's mandate is promoting currency convertibility—essentially, the unrestricted use of a country's currency for international transactions, allowing it to be freely exchanged for foreign currencies (see "Heading for Currency Convertibility," by Martin Gilman, *Finance & Development*, September 1990). But it should be noted that this concept, as defined in the Articles of Agreement (Article VIII), is a limited one: members are obliged to maintain financial convertibility (the absence of limitations on the making of payments and transfers), but not commodity convertibility (the absence of restrictions, such as quotas and bans, on the underlying transactions). In addition, the IMF's concept applies almost exclusively to current transactions. Nevertheless, the IMF also advocates freedom for capital transactions and encourages its members to undertake trade liberalization, as trade restrictions have similar effects to exchange restrictions and can dilute the benefits of currency convertibility. Countries are allowed to maintain, on a transitional basis, exchange restrictions that were in place when they joined the IMF (Article XIV status). New restrictions are subject to the IMF's temporary approval under Article VIII, but members are expected to remove them as soon as circumstances permit.

As it has turned out, most industrial country members achieved current account convertibility by the beginning of the 1960s; in fact, only Greece remains under the transitional Article XIV arrangements. A large number of developing countries have also moved to dismantle restrictive exchange systems: by the middle of 1991, 70 members had adopted Article VIII status, including, most recently, countries such as Cyprus, Indonesia, Korea, Portugal, Swaziland, Tonga, and Turkey. Moreover, many members have adopted bold economic adjustment programs in which the dismantling of restrictions and the opening of the economy to foreign competition played a key role.

This experience shows that certain preconditions must be established for moves toward convertibility to have a reasonable chance of success. These include: (1) a realistic exchange rate; (2) appropriately disciplined monetary and fiscal policies; (3) an adequate level of international reserves; and (4) the elimination of most price controls. The first three are necessary to ensure that the removal of restrictions does not lead to an unsustainable weakening in the balance of payments and possibly a reversal of the move to current account convertibility. The fourth is necessary to ensure that convertibility results in greater efficiency via an alignment of the structure of domestic relative prices with those prevailing in the world market.

Technical assistance in designing or modifying systems. Advice in this area can be either policy oriented or operational. The former focuses on the choice of appropriate exchange rate policy, the type of exchange arrangement (including the exchange control regime), the level of the exchange rate and its compatibility with the stance of other macroeconomic policies, and the sequencing of steps to move from one regime to another. Operational assistance concentrates on the actual operation of a given exchange system, as well as the practical modalities, including institutional and administrative machinery, of putting a new regime into place.

The provision of technical assistance can take a number of forms, often simply a part of the routine annual consultations. But for many developing countries, in particular, the bulk of exchange rate assistance comes through specially designed IMF programs. One of these is run by the IMF's Central Banking Department, which provides resident experts to central banks and fields short-term missions to address specific operational problems, especially where significant exchange system reforms are being pursued. Recent examples of this type of assistance include Bulgaria, Czechoslovakia, Ghana, Nigeria, Peru, the Philippines, Poland, Romania, and Sri Lanka.

The other program is run by the IMF's Exchange and Trade Relations Department, often in conjunction with the Central Banking Department, usually in the context of the design or implementation of an adjustment program that is supported by an IMF arrangement. Such policy-oriented technical advice has been recently provided to Bulgaria, Egypt, Guyana, Jamaica, Mongolia, Romania, Uganda, and Venezuela. In some of these cases, where problems arose with the functioning of interbank exchange markets already in place, the assistance was diagnostic and prescriptive. In other instances, such as Egypt and Uganda, the task was to help modify existing exchange arrangements in a way that was compatible with a medium-term adjustment program and the sequencing of other reforms. In the formerly centrally planned economies, the purpose was to help put in place a system that could function effectively, while rapid structural reforms, including price and trade liberalization, were being implemented.

Conclusion

The IMF has been mandated global responsibilities for the international monetary system, which make the conduct of exchange rate policies of all its members—creditors and borrowers—a central focus of its activities. With the objective of promoting an open and nondiscriminatory international monetary system, the IMF and its staff continuously monitor and analyze exchange rate developments in a multilateral context and bilaterally with each member country and provide advice and technical assistance on all aspects of exchange rate policy. The IMF does not offer a single best exchange rate policy prescription, but rather tailors its advice to country circumstances. In doing so, it has found that disciplined financial policies are the essential prerequisite for stable exchange rates and the avoidance of exchange restrictions. ■

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Military Expenditures in the Developing World

Developing countries continue to allocate, on average, over 5 percent of their GDP and up to 20 percent of central government expenditures for the military, a major drain on their financial resources

Daniel P. Hewitt

Following the thaw in the Cold War, the world has been awash in talk of the "peace dividend," a concept that appears to be easier to launch than it is to define or to collect. Major decreases in military expenditures appear to be certain in Eastern Europe, but the situation in industrial countries seems unclear. Meanwhile, many developing countries continue to spend relatively large amounts on the military, despite their deep, and in many cases, growing economic difficulties. Some recently have cut back their military expenditures in the face of mounting financial constraints. However, over the past two decades, developing countries have consistently allocated a higher proportion of GDP to the military than industrialized nations. Further, developing countries can ill-afford sustained high levels of military spending since this contributes to low growth and domestic economic hardship by diverting funds from social programs, economic development projects, and the private sector.

In order to establish a sound basis for future action, a solid understanding of past policies is crucial. Accordingly, this article, which is based on a longer study (see box), examines military expenditures in 125 nations over 1972–88 to show the distribution of world military expenditures between categories of nations and geographic regions and to provide an insight into the allocation decisions of individual nations. Although collecting reliable estimates of military expenditures is difficult because under-reporting is common, the data does provide a useful indication of overall magnitudes, and accurately depicts trends.

Among the primary conclusions of the longer study, a wide diversity is found to exist in the level of military expenditures by different groups of developing nations. However, in recent years (1983–88), the level of military expenditures in proportion to GDP among developing nations has fallen by over 25 percent from 6.3 to 4.7 percent; simultaneously, regional differences have contracted considerably. Additionally, substantial evidence exists indicating that military expenditures react to financial constraints. Low-income nations and heavily indebted nations have consistently spent less on the military than average. Further, in an analysis of the functional breakdown of government expenditures, an overall contraction in the allocations to the military is observed to have occurred in response to the debt crisis of the 1980s.

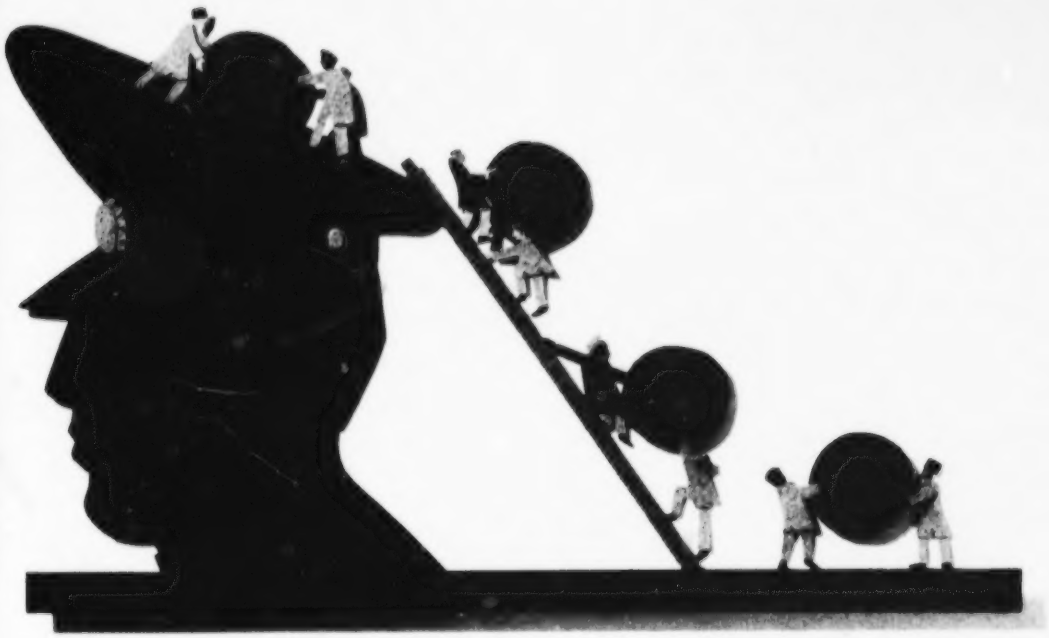
While the trends and determinants of military expenditures describe behavioral choices, economic theory offers limited insight on the optimal level of military expenditure or on the steps nations should take to attain them. Furthermore, the article follows the convention of economics by avoiding speculation on why governments support military expenditures and the merits of so doing. Instead, the primary purpose of this inquiry is to describe the trends in military and other government expenditures, and delineate, where possible, the economic consequences of political choices on such expenditures.

Overall trends, 1972–88

Together, the United States and the Union of Soviet Socialist Republics on average accounted for nearly one half the total military expenditures of 125 countries over 1972–88, and the five next largest spenders accounted for about 20 percent of the total. Industrial countries averaged 53 percent of the total (see Table 1), while the share of the Eastern European countries was 30 percent in the 1970s and 21 percent in the 1980s.

The rest of the world consists of developing nations of varying income levels. Their share of total world military expenditures averaged 20 percent, but was considerably higher at times. Based on data from the Stockholm International Peace Research Institute that was adjusted for our study (see box on data), the peak share of developing countries was 26 percent in 1981, while the lowest level was 15 percent in 1972. In 1988, the share was down to 17 percent. On average, developing countries spent between 4.7

This article and a companion article, to appear in a later issue, are based on two recent studies by the author: "Military Expenditure: International Comparisons of Trends" and "Military Expenditure: Econometric Testing of Economic and Political Influences," available as IMF Working Papers, from the author.



and 6.5 percent of their combined GDP on the military (in 1988 and 1977, respectively).

The regions with the lowest levels of military expenditures in proportion to GDP were Latin America, the Caribbean, and Sub-Saharan Africa. Military expenditures in the Middle East and North Africa were higher; the proportion of GDP in the Middle East averaged 12 percent, and its share of world military expenditures rose from 3 percent in 1972 to 11 percent in 1982–84, before falling back to 7 percent in 1988. The Asian developing nations allocated 8 percent of GDP to the military in the 1970s and 5 percent in the 1980s.

As an indication of the distribution of expenditures by economic classification of countries, the share of the 31 small low-income economies of world military expenditures was 0.6 percent. The share of world military expenditures of the 15 most heavily indebted nations was 3.5 percent. The share of the seven net creditor nations was 5.5 percent, accounting for one fourth of the entire military expenditures of the developing nations in our study.

Rankings by expenditures

Rankings of military expenditures as a percentage of GDP provide a basis for identifying the nations that have chosen to spend a large amount on the military and those that have not. By implication, such an approach serves only to show where countries stand relative to other countries. On an absolute basis, average levels of military expenditures could be inordinately high or low. Even a small percentage of GDP spent on the military may be a relatively large use of scarce resources in terms of foregone benefits in some countries.

Among the 16 countries that are estimated to have spent in excess of 10 percent of GDP (see Table 2), there are no industrial countries,

Table 1
Average military spending around the world: Adjusted SIPRI data, 1972–88

	In percent of[1]		
	GDP	World military expenditure	Central government expenditure[2]
	1972–88	1972–88	1972–88
Industrial countries[3]	3.8	52.7	14.3
Eastern Europe	9.2	25.4	20.7
Developing countries	5.9	22.0	20.0
Asian developing	6.3	8.1	27.2
Middle East	11.6	8.0	23.1
North Africa	9.6	1.8	17.1
Sub-Saharan Africa	3.7	1.5	12.8
Latin America and Caribbean	2.3	2.5	8.6
Total	4.9	100.0	16.5
Developing country groupings:			
Net creditor nations	9.4	5.4	25.0
Heavily indebted	2.8	3.5	10.9
Small low-income economies	3.6	0.6	12.2

Sources: Author's estimates, based on SIPRI and ACDA data.
[1]These are weighted averages derived by converting annual figures into US dollars, using official exchange rates, and then averaging the yearly ratios.
[2]This column shows SIPRI military expenditures as percent of central government expenditures; adjusted SIPRI military expenditures to central government would be higher.
[3]The country categories are derived from the IMF *World Economic Outlook*, with minor modifications to reflect the entire time period covered in this study.

whereas two are low-income nations: Ethiopia and Mozambique. Among the 20 countries that spent 1.6 percent of GDP, four are industrial nations—Japan, Luxembourg, Austria, and Ireland—and six—Niger, Sierra Leone, Ghana, Nepal, Haiti, and Bangladesh—are low-income nations.

The empirical explanation of why certain countries spent more and others spent less are explored in numerous studies. In a companion study (to be reported in a later article), econometric estimates explain 55 percent of the variation of military expenditure as a percent of GDP. In absolute terms, military expenditures are found to rise nearly proportionally to GDP and to rise somewhat less than proportionally to central government expenditure. Small low-income economies are found to allocate less to the military as a percentage of GDP than the average; the heavily indebted countries also spent less and apparently cut back in the 1980s relative to the 1970s.

Further, public and publicly guaranteed external credit tended to engender increased military spending in recipient developing nations. This result indicates that by increasing the resources available to the government, financial assistance helps increase military spending. Among the political factors, the presence of international war or civil war led to higher levels of military spending; nations governed by monarchies, military governments, and socialist governments tended to spend more than those characterized as multiparty democracies. Finally, the results confirm that the geographical characteristics of a nation, such as size and border length, tended to influence the level of military spending.

The proportion of central government expenditures allocated to the military is another way of ranking countries. But this measure of resource allocation decisions and the relative burden of military spending must be interpreted with caution, because such outlays depend on the size of the government and the level and nature of decentralization, as well as on the size of the military. The average ratio worldwide of military expenditure to central government expenditures was 16.5 percent during 1972–88. The industrial country average was somewhat lower, while Eastern European and developing countries had higher than average military expenditures. Among the developing nations, the ratio of military expenditure to central government expenditures in Latin America and the Caribbean was well below the global average; in Sub-Saharan Africa, it was slightly below the world average, while in the Middle East and Asian developing nations, it was well above.

Military imports

An issue that is much discussed in the context of military spending by developing nations is the extent to which imports of military equipment have used up scarce foreign exchange in those countries. The ratio of military imports to total imports averaged 7 percent among developing countries over 1972–88. The ratio was generally below average in Sub-Saharan Africa, Latin America and the Caribbean, and Asian developing nations, while it was nearly double the average in the Middle East and North Africa.

Certainly there are individual countries whose arms imports have been a high proportion of total imports. (For some countries, arms imports even exceed official merchandise imports, indicating that arms imports were not fully included in official trade data.) However, particularly for low-income and heavily indebted countries, the actual cash payment for arms imports has often been a very low proportion of the assessed value, since much of the military equipment purchased by these countries had a high grant element and favorable financing arrangements. Michael Brzoska ("Military Trade, Aid and Developing Country Debt," World Bank Working Paper) estimates that half the purchases from the United States and the Soviet Union were financed through loans or grants and half were paid for in cash.

Budgetary tradeoffs

Since the availability of resources is limited in the medium term, once a nation chooses to fund a given level of military expenditure, ways of financing must be located. Thus, there is always an opportunity cost to military spending. Although the transmission mechanisms are complicated and vary from country to country, the opportunity cost of military expenditures can be categorized into three basic options. A government can increase its overall budgetary expenditures, which in general will lead to lower levels of current private consumption. It can decrease social expenditures, which will lower the quality of social services. Or a government can cut expenditures designed to increase the productive capacity of the nation, such as public infrastructure and economic services, and thereby diminish

Data on military expenditure

The sources for data used in this and the companion econometric study are the World Bank, the United Nations, the Stockholm International Peace Research Institute (SIPRI), the US Arms Control and Disarmament Agency (ACDA), and the US Central Intelligence Agency, in addition to external Fund publications. In a number of cases, published national accounts were used as a supplement. The military expenditure figures are derived primarily from SIPRI.

The SIPRI estimates are useful because they are in local currency. Further they are more reliable than other major sources of such information because their coverage is clearly defined, comprehensive, and consistently applied to each country. SIPRI data were adjusted in two ways. First, SIPRI does not provide estimates of military expenditures of the Soviet Union and China, two extremely important military powers. ACDA estimates were used for China's military expenditures, while Dmitri Steinberg's estimates of Soviet spending ("Trends in Soviet Military Expenditure," *Soviet Studies*, October 1990), were adjusted for possible overshooting.

The second major modification to the SIPRI data involved expanding the coverage and definition of military expenditures to take account of foreign-financed expenditures in the military expenditures of the recipient nations. The SIPRI definition excludes financial expenditures and it is likely that most foreign military purchases are off-budget in developing countries and, therefore, omitted form the SIPRI estimates. It is preferable to define the military expenditures of a nation as consisting of all military expenditures, regardless of the means of financing, consistent with IMF accounting methods. Ideally, this can be accomplished by adding the off-budget military expenditures to the SIPRI figures. However, there is no sure way of knowing to what extent foreign purchases are off-budget items for individual countries. To correct for the measurement error, an alternative set of military expenditure figures was derived—the adjusted SIPRI military expenditures. A formula was used to estimate the off-budget military expenditures from arms imports data provided by ACDA, supplemented with US foreign military aid figures. No adjustment was made for industrial nations or net creditor developing nations (see the working paper for a fuller description and a list of country categories).

Table 2
Rankings of countries by adjusted SIPRI military expenditures as proportion of GDP, 1972–88
(in alphabetical order)

In excess of 20 percent of GDP

Angola, Iraq, Israel, Jordan, Oman, Syria, Yemen People's Democratic Republic

Between 10 and 20 percent

Cuba, Egypt, Ethiopia, Libya, Mozambique, Nicaragua, Saudi Arabia, USSR, Yemen Arab Republic

Below 1.6 percent

Austria, Bangladesh, Brazil, Costa Rica, Côte d'Ivoire, Dominican Republic, Fiji, Ghana, Haiti, Ireland, Jamaica, Japan, Luxembourg, Mauritius, Mexico, Nepal, Niger, Panama, Paraguay, Sierra Leone

Source: Hewitt, 1991.
Note: The ratios are based upon SIPRI data and adjusted for possible off-budget items. See the box on the author's longer paper.

economic growth. Some tentative conclusions on how governments, on average, have accommodated military expenditures are available from a number of sources.

The patterns of military expenditures have changed over the past two decades. Three changes are apparent from world-wide data. First, world military expenditures as a proportion of GDP were lower in the 1980s than in the 1970s. Second, the proportion of central government expenditures to GDP increased in the 1980s relative to the 1970s. Finally, the proportion of military expenditures to central government expenditures fell (which follows automatically from the first two trends). Among the developing nations, military expenditures fell as a proportion of central government expenditures in all regions.

These patterns might at first seem paradoxical. Why did central government expenditures rise and military expenditures fall simultaneously? A major reason may be the rise in interest costs. The share of interest payments in central government expenditures rose nearly 80 percent in a sample of 51 developing countries, ranging from 35 percent to 100 percent for the different country groups. Therefore, changes in expenditure patterns between the 1970s and 1980s present an instance of retrenchment; governments had to seek ways of funding their higher interest liabilities. Meanwhile, social expenditures were protected in the majority of cases while military expenditures and expenditures on economic services were cut back. Among the 51 developing countries studied, the share of the military fell 23 percent on a weighted average basis. The share of military expenditures fell in 21, did not change in 13, and increased in 17. The share allocated to social expenditures fell 17 percent on a weighted average basis.

Although there is a great deal of variation among the regions, the same general pattern is observed in the Middle East, North Africa, and Asian developing nations: social services retained high priority, while the military and economic services were cut substantially. In Sub-Saharan Africa, a somewhat different pattern emerges. The ratio of government spending to GDP fell 5 percent; though the share of military expenditures fell substantially, the share of social expenditures fell much less, and the share of economic services rose significantly. In Latin America and the Caribbean, the ratio of government spending to GDP increased 15 percent; the share of social expenditures, of military expenditures, and of economic services all fell about 15 percent. The heavily indebted nations displayed a similar pattern. However, the small, low-income economies were able to increase expenditures on economic services while increasing military expenditures somewhat and decreasing social expenditures substantially; their ratio of government spending to GDP rose 3 percent.

These results should be treated with caution, since allocation decisions of governments are political in nature. What happens in one country in one particular year may have no bearing on what will happen in another year or another country. The data do, however, show that military expenditures tend to react to financial constraints. In fact, on the basis of more expenditure patterns and empirical findings, it is possible to speculate that military expenditures are a so-called "superior good" among developing nations. Middle-income developing countries spent more relative to GDP than low-income developing nations. Many countries that faced a financial squeeze responded by cutting military expenditures substantially.

Conclusions

The most basic lesson from economic analysis is that when a country allocates resources to the military, there are opportunity costs. For instance, the evidence in the study on which this article is based indicates that military expenditures have, in many nations, diverted resources from economic services or development expenditures. The likely consequences of this trade-off is a lower rate of economic growth. In this sense, excess military expenditures must be designated as "unproductive expenditures," and justification for military spending must be based rigorously on the security needs.

Additionally, from a worldwide perspective, there is a strong case for coordinated decreases in military expenditures (see accompanying article by Robert S. McNamara). Although military expenditures may provide benefits to a given nation, they have a negative impact on the welfare of rival nations, and therefore on a worldwide basis, national military expenditures do not enhance global welfare. A coordinated reduction in military expenditures that does not change the strategic balance will increase economic well-being in the world. Finally, the evidence indicates that military expenditures are quite reactive to financial constraints. Thus, without controls or pressure to do otherwise, foreign financial assistance both enables and encourages a nation to spend more on the military. ■

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GUEST ARTICLE

Reducing Military Expenditures in the Third World

Developing countries should seek to reduce their military expenditures, as a percent of GDP, by 50 percent during this decade

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Military expenditures in the developing countries in 1988 approximated $170 billion, 4.3 percent of GNP. They were only slightly less than total expenditures for health and education and they have quintupled in constant dollars between 1960 and 1988, increasing at a rate twice that of income per capita.

Can such large outlays, in countries so drastically in need of capital to accelerate the rate of economic and social advance of their five billion inhabitants, be reduced? My answer is: Yes. This article will put forward the proposition that a combination of the following actions:

- United Nations Security Council guarantees of territorial integrity;
- Continuing reductions in both conventional and nuclear arms by the Great Powers;
- Tight control of the proliferation of weapons of mass destruction and the means to deliver them;
- Substantial limitations on arms exports from arms producing nations; and
- The tying of financial aid in developing countries to reductions in military expenditures by these countries

could lessen the risk of war among Third World nations and lead to cuts in their military expenditures, as a percent of GNP, of more than half by the end of the decade. The end of the Cold War offers dramatic opportunities for the nations of the world to move in this direction. The international organizations, including financial institutions such as the World Bank, can catalyze the process thereby accelerating economic and social development without reducing security.

This article is derived from a longer paper delivered at the World Bank Annual Conference on Development Economics in Washington, DC, in April 1991. That paper will be appearing, along with others presented at this conference, in a special supplement of the World Bank Economic Review *and the* World Bank Research Observer *in 1992.*

A world of conflict

The past 45 years have seen some 125 wars and conflicts in the Third World, leading to 40 million deaths. It is often suggested that the Third World has been turned into an ideological battleground by the Cold War and the rivalries of the Great Powers. That rivalry has undeniably been a contributing factor and some of the most costly wars have directly involved one or more of the Great Powers. Others grew out of the decolonization process. Many of these conflicts, however, including some of the most costly in terms of human lives, have had their roots in historical enmities within and among developing countries. They have resulted from the desire for regional dominance on the part of some Third World governments, attempts by developing governments to alter their social order, and the persistence of substantial inequities within developing nations.

In view of the diverse reasons countries have for going to war, we must conclude that in the world of the future, conflicts within and among nations will not disappear even though East and West cease to fight their proxy wars in the South. But a different world would emerge if the Great Powers and their allies agreed on and adjusted their foreign and defense policies in accordance with the conditions stipulated above.

Reducing military budgets

As we move to limit both nuclear and conventional forces, while providing for collective action against military aggression wherever it may occur, military budgets throughout the world—in both developed and developing countries—can be reduced substantially.

Over 1978–88, the Third World imported $371 billion of arms (nearly $450 billion in 1988 prices), more than three quarters of the arms traded internationally. While these fig-

ures reflect the relative lack of domestic production capability in the Third World and a legitimate concern to protect national sovereignty, there is clearly great scope for reducing Third World military expenditures by reducing arms imports.

Both supply and demand for arms must be addressed. The United States and the Soviet Union have tended to use arms transfers as a means of maintaining political support in strategically located Third World nations. For many of the Western European and some emerging Third World suppliers (in particular, China and Brazil), economic considerations have been paramount. The sale of weapons and arms production technology has helped to make the domestic defense industries of these smaller producers economically viable and has opened the door to nonmilitary exports. Over the last decade or so, economic considerations have become increasingly important for the Soviet Union as well.

But the demand for weapons is strong too, and many Third World governments have actively sought to purchase arms. One of the most important demand factors is involvement in conflict—internal or external. Of the top 15 Third World arms importers during 1978–88, who together account for about three quarters of arms imported by the Third World, 13 have been party to conflicts of many years' duration. In addition, Third World governments acquire arms to protect against perceived internal and external threats, to bolster their claims to regional power status, as a symbol of unity and independence, and to reward the armed forces for support against internal opposition.

The availability of financing is an important factor in arms purchases. Seven of the top 15 arms importers have had access to petrodollars. Another five have been recipients of grants or heavily subsidized credits. Some Third World countries have received financial assistance from oil rich countries that has allowed them to acquire arms from abroad.

Not all weapons must be imported. More than 54 developing countries have some domestic arms production. Of these, 10 produce nearly all the major weapons manufactured in the Third World. The investments that have made this possible have been significant, particularly in terms of foreign exchange.

Financing military outlays

An important but difficult factor to assess in the financing of military expenditures is the fungibility of external resources, that is, the ability of governments to either divert such resources or free up other resources for military acquisitions. Common sense—and some evidence—suggests that general purpose balance of payments or budgetary financing from abroad enables a government to spend more on the military than would be otherwise possible. It is, therefore, bad economics and bad policy for donor nations and international financial institutions to continue to behave as if the funding of stabilization, adjustment, and development programs can be separated from the financing of military expenditures.

Reducing the demand for arms

Wars and arms procurement (both domestic and abroad) have created a heavy military expenditure burden for a number of Third World countries. To the extent that security assistance takes the form of loans, involves barter trade, or causes additional security-related outlays, it adds to that burden. To reduce the demand for arms in the Third World, whether the arms are imported or produced locally, we should introduce into the system of Collective Security a guarantee by the Security Council and regional organizations of the territorial integrity of member states. The strengthening of regional bodies, such as the Organization of American States and the Organization of African Unity, as well as the creation of such groups for Asia and the Middle East as regional arms of the Security Council, would help this process. International organizations should agree, as well, to actively assist countries in finding negotiated solutions to conflicts.

There is, of course, the danger that reduction of tensions and military forces of the East and the West—and the effectiveness of new high-tech weapons—may lead industrial country arms producers to seek new markets for their products in the Third World. This approach would succeed only if the Third World countries have the financing for such purchases. To the extent that such financing is provided by suppliers through credits, grants, or barter arrangements, curtailment of such facilities would keep down Third World military outlays on imports.

Domestic considerations

While external security considerations play an important role in determining military expenditures in many Third World countries, many such countries continue to allocate large proportions of their budgets to the military without any obvious external threat. Others continue to spend large amounts on security even after external threats have disappeared. The reason often is the desire of the armed forces to preserve a strong internal posture. In some countries, this is the primary objective of such expenditures.

When governments have armed themselves against their own people in an attempt to

Sources of military aid

Reliable and detailed data on security assistance are not widely available. The United States is one of the few countries that provides such data. The three main components of US security assistance are the Military Assistance Program (MAP), which provides grants; the Economic Support Fund (ESF), which provides balance of payments help and finances commodity import programs, increasingly on a grant basis; and the Foreign Military Sales (FMS) program, which enables countries to purchase military hardware and services on credit.

In fiscal year 1989, seven countries—Greece, Honduras, Kenya, the Philippines, El Salvador, Thailand, and Turkey—received 80 percent of the $468 million MAP funds. Nine—Egypt, Greece, Israel, Jordan, Morocco, Pakistan, Portugal, Tunisia, and Turkey—shared the $4.3 billion FMS program. Two of these—Israel and Egypt—accounted for 75 percent of FMS credits, and all these credits were "forgiven," that is, converted into grants. Nearly 80 percent of the $3.6 billion under the ESF went to five countries—Egypt, Israel, Pakistan, the Philippines, and El Salvador, with Israel and Egypt getting nearly 60 percent of the total amount. In fact, these two countries received nearly two thirds of the $8.4 billion in FMS, ESF, and MAP fund, allocated by the United States in FY 1989.

While very little is publicly known about the scale and terms of Soviet security assistance, it is clear that the Soviet economy is less and less able to support any kind of massive aid beyond its borders. For domestic political reasons, planned cuts in military aid to Cuba may not proceed in 1991, but India, for example, hitherto a major recipient of Soviet military supplies, now must pay in hard currency for weapons and arms-production technology imported from the Soviet Union.

Another source of military assistance for some Third World countries has been the oil surplus countries of the Middle East. Saudi Arabia, Algeria, Kuwait, and the United Arab Emirates have provided varying amounts of grants and credits, primarily to other Muslim countries, such as Egypt, Iraq, Pakistan, and Sudan.

maintain themselves in power, the general public often has limited access to the policy-making process and the formal economic system. Under such conditions, elite groups fight for power and some groups are discriminated against or repressed. In such situations, international or regional conflict resolution strategies need to be matched by internal conflict resolution strategies.

In this regard, equitable development and distribution of resources play a key role. In many parts of the Third World, economic systems function primarily to benefit a relatively limited number of people, and political systems are manipulated to continue the dominance of the elites. Indeed, one of the most important effects of military expenditure, which has serious implications for political and economic development, is the degree to which it strengthens the political influence of the armed forces at the expense of civilian groups within Third World societies. The greater the political power of the security forces, the less likely it is that the requirements for democratic governance will be met. It is, therefore, necessary to strive for a political system that allows all groups to articulate their demands and is capable of producing workable compromises between competing interests. The greater the power of the security forces, the less likely the possibility of democratic governance.

When security forces claim a role in guaranteeing internal security for a society, they are not, in most cases, seeking to make all citizens equally secure. Indeed, their actions often create greater instability. All too frequently, the security forces are not protecting a majority of the population from a minority bent on pursuing its own political and economic objectives; instead, they are seeking "regime security" (which often means "military regime security").

Conditionality

The role of the military is, of course, the prerogative of each government. The international community nonetheless needs to identify ways in which it can encourage countries to reduce their security-related expenditures in favor of development.

International financial assistance should be linked to movement toward "optimal levels" of military expenditures, taking into account, of course, sources of external threat to a country. The "conditionality" inherent in such an approach could take the form of the proposal contained in *Facing One World*, the report of the "Independent Group on Financial Flows to Developing Countries," chaired by former German Chancellor Helmut Schmidt. This group, which included former Presidents or Prime Ministers of Nigeria, Peru, Canada, and the Republic of Korea, urged that in allocating foreign aid decisions, special consideration be given to countries spending less than 2 percent of their GNP in the security sector. The huge savings that many countries could make by reducing their security expenditures to this level could be used to address pressing economic and social needs. Even though the application of conditionality may be contentious, it is an essential part of the solution to the waste represented by excessive military spending in poor countries today. ■

Global Investment Needs, Savings, and Military Spending

IMF Managing Director, Michel Camdessus spoke in July at the United Nations Economic and Social Council (ECOSOC) meeting in Geneva on the growing need for global savings in the years ahead and the need to fill the gap between investment and savings. In that context, he spelt out the importance of curtailing "unproductive spending," including that on the military.

Here is an excerpt from his ECOSOC speech:

Broadly speaking, it appears that the additional—and I stress additional—demand for saving might well exceed $100 billion in 1991 and thereafter. A large sum, indeed, which would be higher still if allowance is made for substantial financial support for the Soviet Union, but is still considerably less than 1 percent of the GDP of the industrial countries. The problem is daunting, but it is not insoluble if all countries seek to stimulate savings through appropriate financial policies and to reduce dissavings—particularly public ones—through fiscal policies focused on cuts in unproductive spending. This kind of spending takes several forms: prestige projects, unproductive administrative machinery, military spending beyond the minimum required for national defense, and spending associated with protectionism. Everyone will understand that I recommend attacking first those expenditures whose external impact is the most harmful because they result in mounting waste beyond national border: here I refer most particularly to military spending and protectionism.

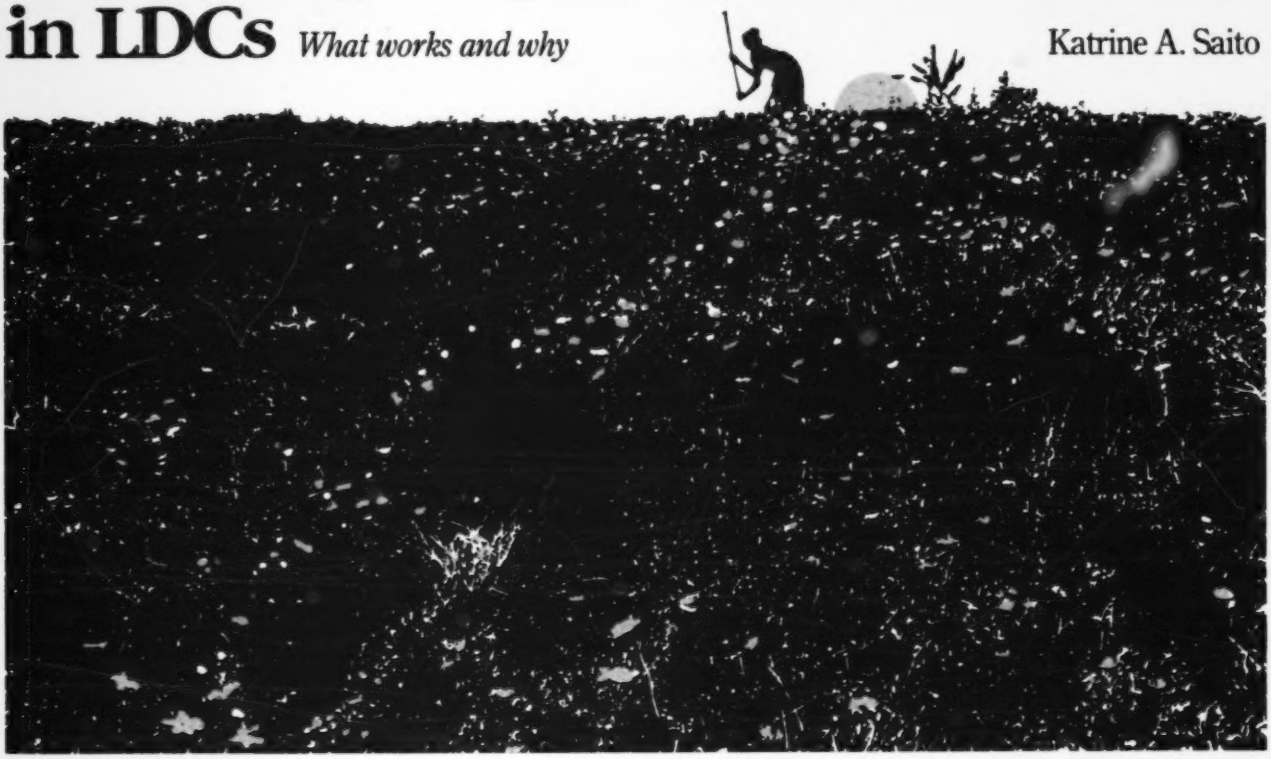
I know that people will say that savings in the latter area can only be made gradually and the effects will be visible only after some time; even so, however, there is broad scope for genuine progress. Allow me to give two examples of this, keeping in mind the size of the additional requirements of about $100 billion to which I referred earlier.

First, with regard to military spending which might be expected to decline somewhat with the reduction of East-West tensions and the settlement of several regional conflicts. Imagine that in such a climate all countries were to decide to reduce their military spending to the level of the worldwide average of 4.5 percent of GDP recorded in 1988. In this case, annual worldwide savings of $140 billion would be generated.

Extending Help to Women Farmers in LDCs

What works and why

Katrine A. Saito



Throughout the developing world, women have long played a pivotal role in agriculture, both as laborers and decisionmakers. Besides being the main ones responsible for food production—in Sub-Saharan Africa, women account for at least 70 percent of the food staple production—they figure prominently in other agricultural activities, including food processing and marketing, cash cropping, and animal husbandry. Moreover, as more men migrate to cities and other countries for work, increasing numbers of women are becoming heads of households, managing farms on a day-to-day basis.

If these women are to carry out their extensive and multifaceted roles in agriculture and respond to market incentives more efficiently, they need effective agricultural extension services. Yet the evidence clearly shows that, despite a growing awareness of the need to reach women farmers, these services—considered to be a prerequisite for widespread and sustained agricultural development—are generally geared toward male farmers. This is sometimes by design, but more often by default. Bias is evident in the delivery of extension, which is generally provided by male agents to male farmers on the fallacious assumption that the message will "trickle across" to women. Bias is also evident in the message itself, which tends to ignore the unique workload, responsibilities, and constraints facing women farmers.

Troubled by this highly inefficient use of resources, not to mention suboptimal levels of agricultural production, many policymakers and donors—such as the World Bank, which has invested about $2 billion in agricultural extension in 79 countries since the mid-1960s—have begun to work with countries on innovative approaches. Pilot programs now underway are providing useful guidance on how best to fully integrate women into the agricultural extension system and the most likely problems to emerge in different socioeconomic environments. This is a relatively new field and much remains to be learned. Even so, it is possible to craft guidelines for (1) better identifying the information and technology needs of women, thereby helping to develop more appropriate messages for them; and (2) improving the cost-effectiveness of the delivery of these messages. While the recommendations are relevant for most extension systems in use by governments, parastatals, and private agencies, particular attention is paid to the "training and visit" system of agricultural extension, favored by the World Bank (see "The World Bank and the training and visit system," by Joslin Landell-Mills, *Finance & Development*, June 1983).

Why women farmers need help

After nearly two decades of studies, it is clear that regional differences aside, women provide most of the labor and make many key decisions in agriculture. In Malawi, for example, women perform 50 to 70 percent of all agricultural work and account for 69 percent of all farmers. But women face special constraints in carrying out agricultural activities,

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making it more difficult for them to operate effectively in factor markets, if they can obtain access at all. As a result, most women have less access to—and higher effective costs for—information, technology, inputs, and credit than men. The end result is depressed productivity.

Land. Typically, women must farm more fragmented, smaller plots than men, and they are less likely to have secure tenure. This acts as a strong disincentive to investing in new techniques. In many parts of the world, land title is in the name of the male head of household, and women are allocated land that is far from their villages and far from other plots they cultivate—posing problems of childcare and transportation.

Technology. Lack of suitable farm and household technology also impairs women's efficiency, restricts their time, and saps their energy for participating in extension. In Zambia, weeding can be performed six times faster with animal traction, but few women can afford this technology, and in many cases, cultural traditions discourage its use by women.

Credit. In most of the developing world, women are bypassed by formal credit systems, because of lack of collateral (usually land title), lower levels of numeracy and literacy, lack of information, burdensome bureaucratic procedures, distance and cost of travel to credit institutions, and cultural attitudes. Available credit is also often limited to the production cycle (most women work in processing) and to cash crops for export (which women are less likely to grow). Without credit, women are less likely to be able to afford the inputs recommended by extension agents, if they come into contact with them at all.

Mobility and time. Women tend to be less mobile and enjoy less uncommitted time than men, making it more difficult for them to participate in training courses outside their villages and inhibiting their ability to respond to opportunities. A study from Burkina Faso, for example, shows that women contribute as much time per day to food and cash crop production as men—in addition to food processing and fetching water and fuelwood—with men averaging twice as much time resting. Similarly, surveys from Pakistan reveal that agricultural and household activities typically take up to 12–15 hours of a woman's day, significantly more than the time spent by men on productive work. In addition, women must contend with less cash for transportation and less likelihood of owning transport. In some countries, sociocultural and religious barriers also limit their mobility.

Cultural norms. In most countries, cultural norms affect interactions between agents and farmers—often, male extension officers may not meet with female farmers—and between male and female farmers. In many parts of South Asia, for example, the strict observance of "purdah" (separation of sexes) results in women remaining in the "inside" labor force. From within the compound, women undertake various agricultural tasks, particularly processing, but cultural conditions make it difficult for male agents to give them advice.

Education. Throughout the developing world, women tend to be less educated than men, severely compromising access to agricultural extension and the ability to comprehend and use technical information. Because of their lower level of education—in most of Africa, the adult male literacy rate is almost twice that of women, and in Bangladesh and India, more than 80 percent of rural women are illiterate compared with 60 percent of rural men—women are less able to respond to written extension messages and, in some cases, cannot be chosen as contact farmers.

Improving the message

Given these gender-related constraints, it is clear that accurate information at the local level—what women farmers do, how they do it, and why they do it—is essential if the research and extension services are to produce and deliver technical advice that is both needed by the farmers and appropriate to their circumstances. Information is needed on the following topics:

- the division of labor between men and women by crops, livestock, and farming operations (this may involve "men's" versus "women's" crops—traditionally, cash versus subsistence crops—or complementary roles for the same crop). In the production of irrigated rice in The Gambia, Senegal, and Burkina Faso, for example, women specialize in transplanting, weeding, winnowing, harvesting, and threshing, while men prepare the fields and maintain the irrigation system. In South Asia, caste and class differences tend to be the dominant influences, with women of lower caste generally having more limited access to the factors of production (including water and public land), as well as to extension services and credit;
- who owns or controls factors of production, crops, or income derived from the sale of produce—women are most likely to invest time and resources in production when they retain control of the harvested crop;
- the types of women farmers—farm managers in their own right, farm partners with their husbands, or laborers. In parts of South Asia, even women in "landless" households need extension services ("landless" in this context frequently means having a small patch of land that, when intensively cultivated, can contribute significantly to the family's survival); and
- geographical variations and local conditions that define production possibilities and constraints. In South Asia, women farmers in the hill and mountain regions of northern India, northern Pakistan, Nepal, and Bhutan need advice that differs sharply from that needed in the tropical plains.

To date, diverse collection methods have proved effective in planning services for female farmers, including seasonal calendars (providing a sense of the farm "enterprise" as well as times of peak labor by gender), seasonal labor profiles, and household record-keeping. Lengthy costly surveys should be avoided. Indeed, one of the most successful approaches uses the quick, inexpensive, informal survey technique of Rapid Rural Appraisal (which involves local populations in the early discussions and design of projects), combined with a two- to three-day field visit. Another useful technique, requiring only a few hours, is to question carefully selected groups of women farmers, preferably without the inhibiting presence of their husbands and other male authority figures.

All of this information must then be fed into research systems that have the ability to generate new knowledge and techniques to improve productivity and sustain rural families. Linkages with both national and international research institutions must be strengthened, and their research agenda broadened to include crops and livestock produced by women (particularly vegetables and small animals), tasks normally performed by women (such as weeding, food processing, preservation, and storage), and technologies and farming systems suitable to the circumstances of women farmers (such as home gardens or alley cropping). Tools and machines also need to be developed—when possible, produced locally—that are suitable for women (i.e., multifunctional and of appropriate size and strength), and most important, distributed widely.

Transmitting the message

Once the relevant message—which is highly location specific—is formulated, the challenge lies in transmitting it to women farmers. There are many ways to do this without transgressing cultural mores. The answer is to find a method suitable for the local traditional culture, financial and human resources, and institutional arrangements.

Using women extension agents. Whether the gender of the agent matters

varies greatly depending on the sociocultural context. Even so, evidence suggests that communication with women farmers is definitely enhanced when female agents are used. But how can the number of women agents be quickly increased? How can they be integrated into the extension system? How can male colleagues be convinced to accept them? How should conflicting family responsibilities be dealt with? And how can adequate logistical support (including transportation) be ensured?

One answer is to sharply boost the number of women in agricultural schools, as these schools will be the main source of trained extension agents—in Africa, only 13 percent of the students are female. To accomplish this, more girls should be enrolled in secondary schools, and agricultural schools should institute targeted growth rates for female enrollment, or economic incentives, such as temporary tuition subsidies. Boarding facilities for female students should be made available (as at Nepal's Institute of Agriculture and Animal Science), and parents of secondary school girls should be informed of opportunities in agriculture. Admission policies of intermediate agricultural institutions should be reviewed to ensure that female enrollment is encouraged (for example, until 1980, none of the agricultural schools in the Republic of Yemen were open to girls), and the curriculum offered should be the same for both sexes.

Then, to retain women in the extension system, efforts should be made to assure equal treatment with men and accommodate those who are married. This means equal access to staff housing, equipment, and transportation. Moreover, the practice, common in many countries, of expelling women extension agents once they marry or become pregnant, must be stopped. One way of coping with a reluctance of women to accept rural posts if their children attend urban schools is to select new female agents from the local government area where they will serve.

But the training and recruitment process takes time, and in the shorter term, one solution is to redeploy female agents already teaching rural women subjects related to agriculture. In many African countries, home economists constitute a large female professional cadre—Nigeria, for example, has some 4,500, and even Sierra Leone, a much smaller country, has over 200. They are particularly common in former British colonies, where they are known as domestic or home scientists, and some are also trained nutritionists and community development workers. In recent years, a number of countries have begun to experiment with this approach. In Nigeria, home economists with agricultural training have been integrated into the extension service and are working very effectively in the highly successful nationwide Women in Agriculture program.

Given that male agents will remain the norm for many years, efforts must also be made to help men overcome attitudes that can undermine programs—one recent study of five African countries found that most male agents perceived women as wives of farmers, rather than farmers in their own right. Training and supervision is one way. Using women extension agents as the initial contact—to introduce groups of women farmers to male agents—is another. This strategy has worked particularly well in northwestern Cameroon, and a similar approach has been suggested in Bangladesh, where male block supervisors form teams with their female counterparts.

Using women contact farmers and women's groups. Using farmers' groups, rather than individuals, as the recipients of extension has been found to be a particularly cost-effective way of reaching farmers, especially women. In many developing countries, there is a long tradition of women forming groups to exchange labor, mobilize savings and credit, provide self-heip, and carry out social and ceremonial functions. Such groups offer a channel through which resources and information from government and donors can flow. Indeed, the advantages are numerous: they provide economies of scale through maximizing the farmer-to-agent ratio; they save travel time and increase the time spent on the actual task for the extension agent; they facilitate adoption of new techniques through peer learning (groups can be especially effective in reinforcing knowledge among illiterate women, who can then rely on collective memory); they allow members to pool resources for production or collateral to obtain credit and other inputs; they serve as an effective means for sharing expensive equipment and provide a vehicle for effective large-scale distribution of inputs; and they help lessen the sociocultural difficulties of male/female interaction. In Chile, for example, existing village groups have been carefully selected and successfully used for extension delivery; family groups were found ineffective since women had difficulty speaking up.

Recruiting more women as contact farmers—or links with extension agents—can also be helpful, but at present, the selection criteria—such as the requirement for land ownership in South Asia—often discourage the participation of women. In Kenya, however, the problem has been effectively tackled by encouraging local chiefs, ministers, and political leaders to support such involvement by women at local gatherings and in the media; emphasizing the selection of women farmers during training sessions; and encouraging extension agents to select contact farmers on the basis of merit, rather than patronage.

Improving access to training. A crucial link in the extension chain is making sure that the client is able to receive the message. Faced with dual responsibilities at home and on the farm, women often cannot attend courses at residential farm training centers, even if transportation is provided. It is important, therefore, that training be brought to them. One way is through mobile training courses, but the mass media hold the greatest potential.

Radio has a long history as a communication tool, particularly in agriculture. Its low cost and wide reach make it a relatively simple, effective technology, especially among illiterate farmers and those in purdah. The key, however, is making sure that the broadcasts fit into the women farmers' work schedules and that the vernacular is used. Pakistan, for example, has made a practice of agricultural broadcasting in local languages. Radio messages should also slightly precede the messages from extension agents. Evidence from Ghana has shown that female farmers question extension agents about subjects already discussed on the radio.

Television is less widely used, because of production and equipment costs. But with its rapid spread across parts of South Asia, it must be regarded as the media of the future—even in places where there is not yet electricity, video machines have been found (in South Asia, generators are used). Videotapes offer a low-cost way of reaching large numbers of women farmers, many of whom can choose to watch at a convenient time. They are increasingly popular in Yemen, where Muslim women can view programs in seclusion. They are also used in Latin America for training, and in India to strengthen farmer-to-farmer sharing of technical information. ■

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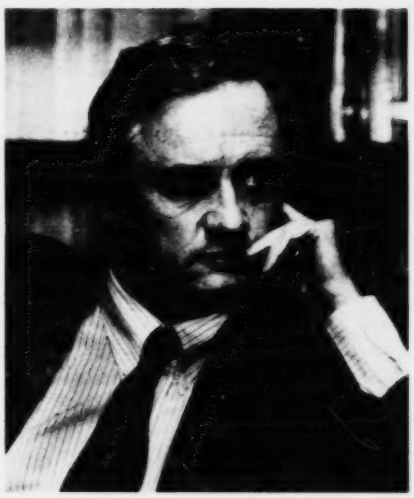
Setting the Development Agenda

The new Chairman of the Development Committee, Alejandro Foxley, Minister of Finance of Chile, was interviewed by the Editor of Finance & Development *recently. In a wide-ranging discussion, Mr. Foxley touched upon a number of key issues affecting development today and the work of the Development Committee*

Here are edited excerpts from Mr. Foxley's remarks:

The role of the Development Committee

Is the Development Committee just a "talking shop"? I don't think so. The Committee tackles very important policy issues. Take the last meeting in April 1991. The Committee discussed and supported the work of the International Finance Corporation (IFC), one of the main institutions of the World Bank Group. If the IFC's capital is doubled, from $1.3 to $2.6 billion, it will have very significant and positive implications for developing countries, because many private companies that have not been able to have access of IFC financing will then have access. This was one of many key issues discussed at the Spring meetings. Others included the impact of the Middle East crisis, poverty reduction, foreign direct investment in developing countries, the impact of industrial country policies on development, the Uruguay Round, the debt strategy, global environment issues, and the IMF quota increase.



In light of criticisms that the Committee agenda is overloaded, I think we need to focus much more on fewer issues. That would produce a more useful discussion.

External debt

One of the agreements reached in the Development Committee in April was to ask the Paris Club to further review and implement additional debt reduction schemes for the poorest countries, along the lines suggested by a number of creditor countries, including the so-called Trinidad terms.

Rather than talking indefinitely about the debt problems of the middle-income countries, we should be proposing ways for these countries to go back to the capital markets. We have to try and turn the debt situation around, from a problem to an opportunity—an opportunity to go back to the markets—because the economic situation of most middle-income countries today is better than it was ten years ago. Of course, this requires an appropriate response on the part of the commercial banks and support of the multilateral institutions.

The Chilean experience with negotiating our debts with the commercial banks has been good and may be worth emulating. We have made progress in our return to the voluntary capital markets. We issued, for example, bonds worth $320 million that were subscribed to by 20 of the largest banks at a competitive commercial rate.

Aid flows to needy regions

There is, no doubt, a demand for resources in the wake of the Middle East war. There is also potentially a demand for additional resources in Eastern Europe. But I think it would be a disaster if the international community did not realize that the problem of poverty in the African countries is as acute as it has ever been and that the better-off countries of the world have to show solidarity with those that are worse off. There were some very eloquent statements during the Spring 1991 meetings by several Ministers in this respect. So, I feel that the Committee has the mandate to actively promote additional aid flows for the African countries.

Reduction of military expenditures by the developing countries

As President Conable said, the World Bank cannot tell a country how much it should spend on the military. But, all these countries have to be able to manage their fiscal policy in a way consistent with macroeconomic equilibrium. If you are overspending in one area, say defense, then you are bound to have trouble, either because you will not then be spending enough on health, education, housing, or infrastructure—which should be major priorities for any government, or you will end up having a very high rate of inflation. The Development Committee communiqué speaks about the "possible reallocation

of public expenditures, including excessive military expenditures." We do not want a very militarized world. We want a world that is more humane, where governments are willing to invest more in people, to build their human capital.

Privatization and foreign investment in developing economies

We should avoid the temptation of simplifying solutions. There are many countries where you do not have yet the entrepreneurial capacity, spirit, and other prerequisites for effective privatization. One can be very mechanistic and say, "Lets privatize everything." But then, who is going to run the companies? And how efficiently are they going to be run? In several countries, the state does have to play a key role, not only in providing social services but also in running some key companies because the professional talent resides more in the state than in the private sector. What has to be done in those cases is to stimulate, induce, and facilitate the process of emergence of an entrepreneurial class, so that it can take charge of the process of development and of the productive activities in the economy.

One of the emerging views on the development process is the acceptance of foreign investment as an important component of the development effort. We used to have many prejudices against foreign investment: that it would not be beneficial for the country because there would be too little reinvestment within the country; and that the profit remittances would debilitate the development effort, and so on. I do not see that anymore. I see that countries are, rather, competing for investment, and there is a general trend toward liberalization of rules concerning foreign investment. This is a positive trend.

Regional trading blocks and multilateralism

I do not believe that regional blocks run counter to multilateralism. The multilateral agencies should, in fact, encourage free trade agreements between countries to facilitate moves in the direction of a freer multilateral trading system, but not in the direction of forming blocks or economic fortresses. We might even think of a new conditionality—so to speak—in which the multilaterals would finance, say, joint ventures between countries entering into a trade block, under the condition that the block would then work to move the economies of its members toward multilateral liberalization and not the other way around. ■

The Bank/IMF Development Committee

The Development Committee was established by the Boards of Governors of the World Bank and the International Monetary Fund in 1974 and is formally known as the Joint Ministerial Committee of the Boards of Governors of the Bank and the Fund on the Transfer of Real Resources to Developing Countries. The Committee has a unique character: It is the only joint ministerial body of the Bretton Woods institutions, and it gives principal attention to issues affecting developing countries.

The Development Committee is an advisory body to the Boards of Governors of the Bank and the IMF. In practice, however, the Committee can exercise a significant degree of influence on the policies and operations of the Bretton Woods institutions that fall within the framework of its mandate.

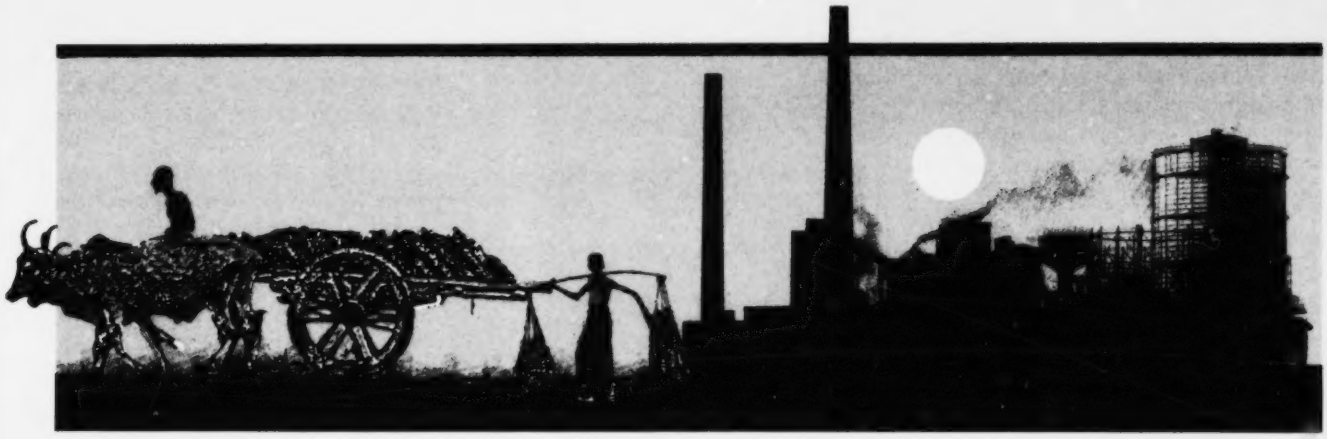
The central mandate given the Committee at its creation was to consider the broad question of the transfer of real resources to developing countries, including international trade and payments, as well as foreign capital flows of all kinds. The Committee was intended to provide a comprehensive overview of international activities affecting development and to coordinate international efforts to deal with problems of development financing. It was requested to advise and report to the Boards of Governors on all aspects of the transfer of resources to developing countries and to suggest ways in which its recommendations might be implemented by appropriate parties, including the Bank and the IMF. In recent years, the Committee has focused on a broad array of important topics deriving from its mandate, ranging from the financing requirements of low-income countries in Sub-Saharan Africa to the funding of environmental initiatives and the impact of industrial countries' policies on developing countries.

The Committee is composed of 22 finance and development ministers, who are also governors of the World Bank or IMF. In addition, its meetings are attended by 18 observers from regional development banks and other official international organizations. The President of the World Bank and the Managing Director of the IMF attend all meetings.

The Chairman of the Committee is selected from among its members and traditionally is a national of a developing country. The Committee also periodically elects an Executive Secretary, who traditionally is a national of an industrial country and is responsible for carrying out its work in the intervals between meetings, under the general direction of the Chairman.

The Committee meets twice a year, once at the time of the Bank/IMF Annual Meetings (in the fall) and once in the spring. Staffs of the two institutions regularly provide issues papers and progress reports on agenda items. In addition, the President of the Bank and the Managing Director of the IMF present reports providing their perspectives on the issues under consideration. A Steering Committee, composed of representatives of the two staffs and chaired by the Executive Secretary, meets regularly to coordinate institutional support for the Committee. The Executive Directors of the Bank and the IMF play an active role in reviewing and commenting upon all documentation prepared for Committee meetings, as well as in framing issues for their respective Ministers. The conclusions and recommendations of the Committee are contained in a formal communique issued at the end of each meeting.

Robert Ayres



Challenge of Sustaining Growth with Equity in Asia

Despite the general picture of relative success, Asia needs to tackle some major long-term development problems

Attila Karaosmanoglu

The 1980s are often described as a "lost decade" for the developing countries. Indeed, there were many countries in Asia and other parts of the world where the growth in per capita incomes during this period was negligible or negative. However, for the region as a whole, Asia registered remarkable growth. In fact, during this decade, Asia's per capita income grew by 5.2 percent per year, which was impressive both in relation to its own past performance (nearly twice the rate during the 1960s and 1970s), and in relation to other parts of the developing world.

The success of Asia during this period was in spite of unfavorable external conditions. The region experienced a decline in its terms of trade and higher international real interest rates. It had its share of natural disasters and political upheavals. Nor was external aid large; in fact, Asia's share of overseas development assistance (ODA) continued to decline in the 1980s. What is unique about the success of Asian countries was the nature of their structural reforms, which were voluntary, sustained, gradual, and effective. These reforms covered a broad spectrum, including prudent fiscal and monetary management, trade liberalization, encouragement of private sector development, and support for social sectors.

Of course, the new found prosperity of the rapidly industrializing economies of Asia, such as Indonesia, Malaysia, the Republic of Korea, and Thailand (see table) accounts for a large part of the success of Asian countries. Despite a decline in their terms of trade, and an accelerated decline in their share of ODA, these countries registered a high per capita growth rate during the 1980s. By 1989, these countries made dramatic progress in reducing the percentage of population below the poverty line to less than 20 percent. In addition, an increasingly favorable environment was created for private sector development, with governments playing an active role in building physical, social, legal, regulatory, and technical infrastructure. As a result, these countries were in a position to handle the shocks of the early 1990s and maintain sustained growth, while continuing to reduce poverty.

The principal source of acceleration in the region's growth rate was the remarkable surge in the per capita growth rates for China—a spectacular 8.3 percent per year, from 3.3 percent per year in the 1970s—and India, whose per capita growth during the 1980s was 3.3 percent per year, three times the rate in the preceding two decades. Income growth in these countries was also associated with a significant improvement in social indicators. By 1988, China had a life expectancy at birth of 70 years, daily calorie supply of 2,630 per capita, infant mortality rate of 31 per thousand, and, near universal primary education enrollment. India, though lagging behind, had also made significant progress in all these areas.

However, while China and India benefited from the liberalization process in the 1980s, strains were beginning to be evident by the end of the decade. China reaped the fruits of reforms in rural sectors in the early 1980s, but the next stage of decentralized management in the urban and industrial sectors proved more difficult. Serious inflation developed by 1988, requiring a strong policy response. For India, the liberalization process was associated with significant improvement in industrial and export growth, but problems emerged by the end of the 1980s. On the external front, foreign exchange reserves declined and the debt-service burden increased to alarming levels. The budget deficits were high and inflation was approaching double-digits. The accumulating short-term macromanagement problems were combined with continuing problems in terms of distorted trade policies, a weak financial sector, restrictive labor markets, inefficient parastatals, and

constraints on the private sector.

For other countries in Asia, the 1980s was a decade of low and declining rates of growth. Per capita income for this group in the 1980s declined by about 0.6 percent per year, similar to the rate for developing countries outside of Asia. Within this group, the Philippines experienced the sharpest decline (1.7 percent per year), with Myanmar, the Pacific Island countries, and Papua New Guinea following closely behind. For Bangladesh, Laos, Nepal, and Sri Lanka, per capita income growth rates were low or declining. Many of these countries combined the problems of policy distortions with problems of capacity building and unsustainable population growth.

It is in this context that Asia faced the Middle East crisis in 1990. Many feared that the shock would be severe, not only because of higher oil prices (the third oil shock), but also because of higher interest rates, losses in workers' remittances, and a sharp decline in exports to Iraq and Kuwait. However, the shock proved much less severe than had been expected. It was less severe on the fiscal front because Asian governments quickly adopted measures to deal with the potential losses: domestic fuel prices had been increased in oil importing countries by late 1990. The impact of the shock, however, was more severe on the balance of payments, with estimated losses by the end of 1990 of $1.3 billion in India, $0.5 billion in the Philippines, and $0.3 billion in Bangladesh—the countries most affected by the oil shock in Asia. Additional external assistance was mobilized to help with the shortfall. In addition, the relatively fast return to pre-crisis oil prices in early 1991 and a continued expansion of export revenues in most countries, helped. By early 1991, the shock had largely dissipated, with the notable exception of India.

The unfinished agenda

Thus, while the overall performance of Asia in the 1980s is a cause for confidence, there is no room for complacency. Except for the rapidly industrializing, open economies (Korea, Thailand, Malaysia, and Indonesia), most of the Asian countries were facing the risk of macroeconomic imbalances and slow, or decelerating, growth rates. In most of these cases, the structural reform problems were embedded in longer-term development problems of poverty, linked tightly to rapid population growth and the deteriorating environment. Concern over these issues has intensified in recent years. But even under the very difficult conditions prevailing in many of the countries in Asia, there is reason for hope that their response to these problems will be positive and improvements attainable.

Growth and structural reforms. The experience of the rapidly industrializing open economies of Asia have shown that growth is essential for poverty alleviation, that structural reforms are essential for growth, and that private sector development is of critical significance for competitiveness and sustained economic performance. While some strains have emerged in recent years, the underlying economic structures and policy directions in these countries are such as to enable them to maintain the growth momentum of the past.

The emerging consensus on development strategy—recognition of the importance of incentives, integrated markets, and private enterprise—is now widely accepted by the authorities of most Asian developing countries. However, the pace of structural reforms essential to attain these objectives has slowed down in many countries of Asia. In these economies, the trade barriers are still high, investment and commercial activity is still overregulated, financial markets are distorted, and the labor markets are seriously segmented. There are also compelling reasons for streamlining the public sector and improving policies toward private foreign investments and technology transfers.

The Philippines' economic situation is a cause for concern. One of the earliest countries under adjustment programs, it suffered during the 1980s from political unrest, declining per capita incomes, increasing macro imbalances, and growing poverty problems. A resumption of growth with equity will require designing programs that will not only address structural problems but also redirect resources from consumption by the top few to broad-based development. The private sector, defined to include big businesses as well as the small, medium, and informal sector, will play a key role.

Population and demography. Asia's population is large, youthful, and rapidly growing in size. More than half the world's 5 billion people live in Asia, nearly 35 percent of whom are below 15 years of age. Looking at measures of density of settlement, Asia (excluding Pakistan) has 354 people per square kilometer of agricultural land compared to 55 for Latin America, 58 for Sub-Saharan Africa, and 116 for the Middle East and North Africa. Bangladesh has over 1,000 people per square kilometer of agricultural land. Asia is beset today with a population problem imposing high environmental and economic costs that will constrain sustainable development.

Four basic demographic factors affect the growth of population: (1) age structure of the population; (2) mortality rate; (3) fertility rate; and (4) mean age of childbirth. Even under the best of conditions imaginable—that is, an immediate fall in total fertility rates to replacement levels—the population of the Philippines and Bangladesh would be 50 percent higher by 2025, while that of India, about 40 percent larger. A more realistic fertility decline scenario would result in even higher increases in population.

Despite encouraging trends in fertility, demographic prospects for low-income Asia are unfavorable for two reasons. First, in most countries, fertility is still substantially above replacement levels. Second, the impact of lowered fertility in slowing population growth has in many instances been totally or partially offset by parallel declines in mortality and the mean age of childbearing, as well as by larger cohorts of

Asia: growth of GDP per capita, 1960–89
(In percent)

	1960–70	1970–80	1980–90
Indonesia	1.0	4.8	3.1
Korea	6.0	7.7	8.4
Malaysia	3.5	5.4	2.2
Thailand	5.2	4.3	5.1
China	3.6	3.3	8.3
India	1.3	1.0	3.3
Bangladesh	1.0	0.9	0.8
Lao, People's Dem. Rep.	--	--	0.4
Myanmar	0.1	2.4	–1.0
Nepal	0.7	0.1	2.1
Papua New Guinea	4.2	–0.2	–0.3
Philippines	1.9	3.5	–1.7
Sri Lanka	2.0	3.1	2.5
Pacific Islands	1.8	2.4	–0.5
Asia	2.4	3.2	5.1
Other developing countries	2.7	3.0	–0.4

Source: World Bank.

women of childbearing age. India is a good example: between 1980 and 1987, the total fertility rate fell from 4.5 to 4.0, but the corresponding annual rate of population growth actually rose from 1.97 to 2.06.

Without doubt, these problems loom larger for the poorer South Asian countries because their capacity to cope with them is much more constrained by tight budgets, the already heavy pressure on environmental resources, the sparseness of existing infrastructure and institutions, and high fertility rates. For these countries, the urgency of accelerating the decline in fertility rates is well recognized. At the same time, raising the mean age of childbearing is also critically important; a decline will significantly offset the benefits of lower fertility rates. Hence, these findings point to a greater emphasis on making temporary birth control methods available to young mothers to encourage a higher mean age of childbearing.

Patterns of poverty and poverty reduction. Population growth is tightly linked to the persistence of poverty. The dimensions and rough distribution of poverty in Asia have been known for some time, both in the poor countries of South Asia and in East Asia, where the industrializing high-growth economies have achieved dramatic reductions in the proportion as well as the total number of people living in poverty. The Bank's recent analytical work, however, has brought to light some important characteristics of poverty in Asia and pointed the way toward effective public interventions to hasten its reduction.

- Asia's poverty and its population is concentrated in five countries (India, Bangladesh, Indonesia, the Philippines, and China), which contain about 540 million poor, and within those countries, poverty tends to be concentrated regionally. This is also true for disparities in social indicators and the availability of social and economic services.
- The impact of population growth, particularly in the densely settled rural areas, on the quality of environmental resources tends to aggravate Asia's problem of poverty. Forests are cut down, soils eroded, and soil nutrients exhausted under pressure from land and fuel hungry poor.
- The status of women in South Asia, particularly in regard to health and education, is abysmally low and strongly associated with poverty status. Higher female than male mortality rates are a particularly disturbing indicator of inequitable access to services. An increasing number of women are landless heads of household, joining a traditional and very large group of rural landless poor, especially in South Asia.

For Malaysia, Korea, Thailand, and possibly Indonesia, the high rate of growth has or will effectively control the poverty problem. It is in the countries of South Asia, as well as the Philippines and Indochina—characterized by slow output growth, poor resources, and rapid population increase—that significant problems of poverty still persist. In many of these countries, a targeted approach of investments and programs designed to reach the poor can serve as an effective complement to an overall growth strategy. Considerable recent work has been done to clarify problems and approaches of targeted poverty interventions.

For example, the provision of irrigation and agricultural services in poor underserved regions would be an effective strategy in such countries as China, Philippines, and India. Investments in drinking water and electricity in such regions can also improve the productivity of the rural poor. To reach the landless rural poor, including women, both direct and indirect approaches are necessary. An increase in the productivity of agriculture will raise farmers' incomes, as well as the demand for farm and off-farm labor. More direct programs will need to involve Asian NGOS, many of which have an excellent record of motivating the poor and delivering well-targeted credit, employment, and training programs.

In the area of social infrastructure, the existence of wide disparities between poor and nonpoor in both social indicators and in terms of access to quality services opens up a wide area of possible interventions on a sectoral basis. One promising approach to these problems is through analysis of public expenditure in the social services. Primary education in India, for example, receives a comparatively low proportion of public spending, leading to severe inequities in educational attainment. This is not the case for hospital admissions in India, where the poor enjoy proportionately greater access. By contrast, data for Indonesia show that access by the poor to hospital care is very low compared to the better off. Differences among countries in level of access by the poor are significant, and indicate the potential, on a case-by-case basis, for retargeting social sector expenditures and changing policy to reach the poor.

The environment. The region's focus on environmental issues is in part driven by the severity of poverty and the rapid growth of population. The combination of demographic, economic, and climatic conditions in Asia are producing enormous pressures on the environment that will need to be addressed in the near term if further environmental degradation and potential environmental catastrophes are to be avoided in the long term.

As Asia's population continues to grow, the proportion of the regional population living in cities will also increase. By 2025, some 50 cities will have in excess of 4 million people each, compared to 20 cities currently. South Asia is expected to have the highest ratio of population in such mega-cities by 2025. Many of these cities will have 10 million people or more. Few governments have policies or programs under consideration to cope with the projected rates and associated needs of urbanization.

Forest areas are declining in most areas of the region. Rates of decline are highest in South East Asia and most severe in South Asia. This has resulted largely from the demand for increased agricultural land, commercial logging, and fuel wood collection. In addition to losing the natural resources provided by the forest, deforestation causes soil erosion, water loss, flooding, desertification, and the silting of irrigation reservoirs. Soil erosion is estimated to cost Java alone about $400 million annually (soil productivity loss plus costs of clearing silt from irrigation facilities, rivers, and dams). Deforestation also leads to a loss of habitat—about one quarter of the world's biological resources are at a high risk of extinction in the next 20–30 years.

Although gross water resources are generally sufficient throughout the region, several local rates of consumption in South Asia and China are unsustainable, with available water supplies being used up. For example, $400 million was spent each year in 1985, 1986, and 1987 to supply water to inhabitants in drought-stricken rural Gujarat (India). Further, water quality is declining regionwide and this decline is expected to accelerate to below already intolerable levels. Waste water severely pollutes 70 percent of China's 78 monitored rivers, and the country is treating only 2 percent of its total waste water. In India, only 217 of 3,110 towns and cities have any form of sewerage treatment, and municipal sewerage systems serve only 4 percent of India's population. In the absence of clean surface water, groundwater resources are also being depleted, and since shallow wells dry up

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first, the impact is felt disproportionately among the poor.

Atmospheric pollution in Asian countries is a matter of both national and international concern. Air pollution is a major threat to human health in cities like Beijing, and children in Bangkok show increasing levels of toxic chemicals in their blood stream from automobile emissions. In addition, the rapid increase in atmospheric emissions in Asia's newly industrializing nations contribute to global problems such as acid rain and possible climate change.

The "greenhouse gases" implicated in global warming are produced mainly by the large developed countries (the United States, the countries in the European Community, and the Union of Soviet Socialist Republic produce about 50 percent of greenhouse gases), but the rate of increase is greatest in the developing world, particularly in Asia. Presently, Asia produces about 20 percent of the world's greenhouse gases. Emissions in India and China are growing by a startling 6–7 percent per year, while industrial world emissions are growing by less than 1 percent. Left unchecked, these two countries in the next 20 years will triple their carbon dioxide emissions and offset a 40–50 percent reduction by the industrial countries. Consequently, Asia presents the greatest single threat to the world's environmental balance in atmospheric pollution.

The World Bank's borrowers have initiated a number of efforts to address environmental concerns. Most countries have either prepared, or will prepare, environmental reports or action plans in anticipation of the June 1992 UN Conference on the Environment and Development in Brazil. These will highlight environmental problems at the national level and identify regional issues related to natural resource management, human resource development, and the need for concessional aid to support recommended investment programs. A major World Bank program with UNDP has sought to identify strategies to improve conditions in Asia's largest cities, while many Asian countries are studying means to mitigate urban and industrial pollution. To help address global concerns, work sponsored by several donors has been initiated in China, India, Malaysia, and Indonesia.

Conclusion

Overall, Asia's prospects are good. Despite the seriousness of problems, the favorable economic policy and institutional context provide the foundations for progress. However, the 1990s forces policymakers to confront some particularly disturbing developments: the rise of serious macro imbalances, accentuated in some cases by the impact of events in the Middle East; the danger of losing momentum in the implementation of structural reforms in the more vulnerable economies; the increasingly ominous interaction between poverty and population in countries with a high incidence of poverty; and finally, the accelerating environmental deterioration in many countries, which threatens the productive base of society. These developments should temper the usual optimism bestowed on the region as a whole and direct more forcefully the attention of donors to an important subgroup of Asian countries that must cross many hurdles before joining the ranks of their rapidly growing neighbors. ■

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How Mobile is Capital in Developing Countries?

Much more than is commonly assumed, reveals a new study

Nadeem U. Haque and Peter J. Montiel
Research Department, IMF

Controls over the international movement of capital, often assumed to be pervasive and stringent in developing countries, are neither, according to the results of our recent research into the effective mobility of capital in 15 diverse developing countries. As a result, capital moves in and out of countries, both legally and by evasion of controls, with much greater frequency and ease than one would expect. This has important consequences for economic policy-making.

The degree of capital mobility has an important bearing on the short-term effects of stabilization policies—including monetary, fiscal, and exchange rate policies—in developing countries. A high degree of mobility in a fixed exchange rate regime reduces the ability of a government to devise an effective monetary policy, which depends on controlling demand through monetary aggregates. By allowing external finance to move into an economy, a high degree of capital mobility may nullify the contractionary effects of a nominal devaluation, or limit the crowding out of private investment by an expansionary fiscal policy. The strength of the effects varies with the degree of capital mobility. That, in turn, depends on the effectiveness of capital controls.

Existing controls

The vast majority of developing countries maintains significant legal restrictions over capital movements, apparently motivated by the desire to facilitate monetary control and the management of their balance of payments. According to the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions* (1989), many developing economies do not allow the free flow of financial capital. As a result, developing countries are often assumed to have closed capital accounts, except for borrowing by the public sector.

The reality is different. Massive episodes of capital flight and fairly routine evasion of controls—for example, through over- and under-invoicing of imports and exports respectively, smuggling, and bribery—appear to reflect the ineffectiveness of such controls. Moreover, by keeping large amounts of their earnings or flight capital abroad, residents reduce the ability of domestic authorities to control the use of those resources with local instruments, such as interest rates or credit ceilings. At times, financial pressures (either for inflows or outflows) may be strong enough to lead to the official relaxation of controls.

But not much is known with certainty about the nature and extent of capital controls, and hence capital mobility, in developing economies. Empirical research has produced meager and rather mixed results. Much of the earlier work to find out how far changes in domestic credit policies affected decisions by individuals and firms to move financial resources in or out of a country has typically shown that developing economies have limited domestic monetary autonomy, a finding consistent with a high degree of capital mobility. But little work has been done to establish the extent of mobility across different economies.

The study

To test for capital mobility, our study used annual data from 15 developing countries for the period 1969–87. The size of the sample was determined by data availability and the need to make the analysis manageable. Save for the series on debt, the data were drawn from the *International Financial Statistics* files of the IMF. Debt data were taken from the World Bank's *World Debt Tables*. The countries included in the sample were Brazil, Guatemala, India, Indonesia, Jordan, Kenya, Malaysia, Malta, Morocco, the Philippines, Sri Lanka, Tunisia, Turkey, Uruguay, and Zambia.

The choice of countries was guided by two considerations: first, internally consistent time series of reasonable length were available in these countries in the two data sources we employed; second, among the countries that satisfied the first criterion, the sample had to maintain a geographical balance and represent a wide range of developing countries. Our sample consisted of six Asian countries, four African countries, three Latin American countries, and two European countries. It also included four low-income countries and three heavily indebted countries. The results should, therefore, be fairly representative of developing countries in general.

In order to test for capital mobility, we began with the following two well-known propositions: (1) the interest rate in the domestic market in a completely open economy (i.e., when the capital account is open) is determined by the uncovered interest rate parity (i.e., the sum of the foreign interest rate and the expected depreciation of the exchange rate); and (2) the interest rate in a closed economy is determined purely by domestic money market equilibrium. Consequently, we assumed that the domestic market-clearing interest rate in developing countries can be expressed as a weighted average of the uncovered interest parity interest rate and the domestic market-clearing interest rate that would be observed if the private capital account were completely closed.

To measure the effective degree of capital mobility in our diverse sample of developing countries, we estimated money demand equations by replacing the interest rate variable with the weighted average described in the box on methodology. This yielded an estimate of the weight attached to the uncovered parity interest rate, which represents an index of effective capital mobility.

Results of study

The results showed that 10 out of the 15 sample countries had high capital mobility;

that is, the polar case of a completely financially closed economy can be ruled out, but not that of a completely financially open economy (see box). The governments of these ten countries have little control over domestic interest rates and the money supply. Four other countries fall in the intermediate category of partial capital mobility—neither a completely open nor a completely closed economy. In these countries, the domestic interest rate would be subject to partial control by the government, at least in the short run. In only one country, India, do the results suggest that capital is immobile.

These results indicate that, on average, over the period 1969–87, domestic market-determined interest rates for this rather diverse group of developing countries tended to move quite closely with external rates and were relatively less influenced by domestic financial developments—except to the extent that such developments were expected to lead to exchange rate adjustments. The effective degree of capital mobility may well have varied over time for some of the countries in the sample. However, scarcity of data prevents us from verifying this.

. . . and their implications

The finding of a high degree of capital mobility in developing economies has important implications for macroeconomic policy in these countries. First, this means that fiscal policy has relatively powerful effects, compared to monetary policy, on domestic demand and the trade balance. Second, monetary policy is relatively ineffective in a fixed exchange rate regime, with variations in domestic credit lending to be offset by capital movements. Monetary policy, therefore, is effective in influencing capital flows and the balance of payments.

The results also suggest that capital controls tend to be ineffective, or at least their effects are of limited duration. In spite of prevalent capital controls, capital flows proved to be sufficient to maintain fairly close interest parity relationships with external interest rates over this period.

The empirical effectiveness of this kind of interest arbitrage undermines a key argument used to support policies of "financial repression" in developing countries. Maintaining low administered interest rates in the formal financial system will not stimulate domestic investment, since the marginal cost of funds will be given by the market-determined rate in informal loan markets, and this rate will effectively move in line with external interest rates. Below-market controlled interest rates will, under such circumstances, lead to inefficient allocation of capital, reducing growth, and transferring income from domestic savers to favored domestic borrowers.

The results also underline the importance of avoiding exchange rate misalignment in developing countries. Anticipated exchange rate adjustments will quickly be reflected in capital outflows—as has in fact been the case recently in many developing countries—and in high domestic market-determined interest rates. The latter are, in turn, likely to imply high real interest rates, with adverse consequences for the level of economic activity and for medium-term economic growth. High capital mobility coupled with expectations of devaluation may thus help explain, at least to some degree, the unsatisfactory performance of private investment in many highly indebted countries over the past decade.

Although the empirical finding of a high degree of capital mobility implies a loss of policy autonomy, governments should not try to limit the degree of capital mobility for at least two reasons. First, there are familiar efficiency reasons for allowing domestic prices to reflect external opportunity costs. Second, as indicated previously, our findings suggest that measures to limit the degree of capital mobility tend to be ineffective in developing countries. The best policy under these circumstances would be to avoid exchange rate overvaluation through appropriate fiscal, monetary, and exchange rate policies. ■

A note on methodology

In a completely open economy, the domestic interest rate would be equal to the interest rate that prevails abroad, plus the expected rate of depreciation of the exchange rate (a situation known as interest parity). On the other hand, in a completely closed economy, the domestic interest rate adjusts to clear the domestic money market. In an economy where capital controls are less than perfect, but not completely ineffective, interest rates would be influenced both by interest parity and by domestic money market conditions. Consequently, the domestic interest rate can be viewed as a weighted average of these two polar extremes.

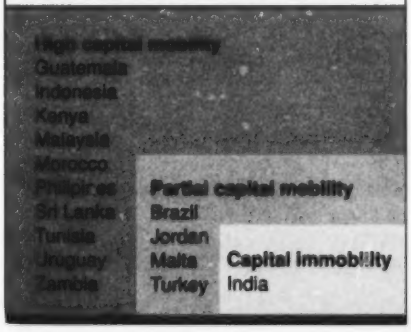
If the three interest rates—the open economy rate, the closed economy rate, and the rate that actually prevails—were available, then the weighted relationship could be estimated, and the weighting factor would provide an estimate of the degree of effective capital mobility. An estimate of 1 as the weight for the interest parity rate would indicate perfect capital mobility, while an estimate of 0 (zero) would suggest complete capital immobility. Values between 0 and 1 would indicate the degree of capital mobility.

Since the interest rate that would prevail if the capital markets are completely closed is a hypothetical construct, and since data for the market-clearing interest rate are not available in most developing countries, our method for estimating the degree of capital mobility relies on the estimation of money demand, where the demand for money is a function of the interest rate, income, and the lagged money stock. Substituting the weighted average for the domestic market-clearing interest rate in this specification gives us money demand as a function of the interest rate parity, the unobservable closed economy interest rate, and other variables.

In the presence of completely effective capital controls, the interest rate would adjust to clear the money market. The unobserved closed economy interest rate can, therefore, be calculated as a function of income, lagged money, and the closed economy money supply (i.e., the money stock net of the monetary effects of private capital flows). Since all these variables are observable, substitution of this result for the unobserved closed economy interest rate in the money demand equation gives us variables that are all observable and in which the degree of capital mobility can be directly estimated as the coefficient of the interest parity variable.

For a detailed explanation of the methodology and results, see "Capital Mobility in Developing Countries—Some Empirical Tests," available as IMF Working Paper WP/90/117 from the authors.

Estimated degree of capital mobility in selected developing countries, 1969–87



Accessing the International Capital Markets

Companies from developing countries are now looking beyond their local financial markets to raise funds. How the IFC helps

Kumiko Yoshinari

Senior Investment Officer, Capital Markets Department, IFC

A Frankfurt-based investor buying shares in a Mexican company? This is not as novel as it sounds. Since late 1989, an increasing number of companies located in developing countries (especially those in Latin America) have been obtaining funding in the international capital markets. They had done so, in a limited way, prior to 1982. But many of these companies, with the exception of some in Asia, were unable to obtain external financing during most of the 1980s, largely because the debt crisis in developing countries eliminated investor interest in them. Now, with growing confidence in their countries' economic adjustment efforts, many companies have returned to selling securities on international capital markets. In June 1989, a Mexican bank—Bancomext—issued a $100 million unsecured bond with a yield close to 17 percent. Since then, several Mexican issuers (including such well-known names as Telmex, Pemex, Cemex, and Nafinsa) have issued securities (e.g., bonds, floating rate notes, and convertible bonds) at increasingly attractive rates abroad, followed by Chilean and Venezuelan companies also eager to tap the international capital markets.

Through such security issues, many developing countries are gradually seeing their securities markets integrated into the vast network of the world financial markets. This is not surprising as these securities issues not only benefit the company but also international investors. Developing country companies are thus increasingly able to diversify their funding base beyond the local financial markets, which still remain limited in size and scope. In addition, the beneficial impact on the economies of developing countries should not be ignored. Such securities issues help introduce new financial instruments to the domestic capital markets and harmonize disclosure and accounting standards. All these developments could lead to a more active local capital market and consequently, increased mobilization of domestic savings.

But it is not so easy for a developing country firm to issue securities abroad. This is largely because (1) securities issued by companies from developing countries generally require more effort in placement and sales to investors compared with a similar undertaking for a company in a developed country. Investors generally prefer to purchase securities of companies they are familiar with, or are well known among investors. Also, the economic and political situation of the country in question is just as important and often needs to be described in detail to potential investors; (2) the company's accounts and other information are typically not disclosed in a sufficiently detailed manner to meet requirements of institutional investors in the major capital markets; (3) accounting standards used in many developing countries differ significantly from those used in the industrial countries; and (4) in most cases, the terms and pricing of securities issues require the approval of the developing countries' authorities on a case-by-case basis.

Over the past five years, the International Finance Corporation (IFC) has become increasingly involved in helping companies in developing countries raise financing through international offerings of investment funds and individual corporate securities. This effort gained momentum with the establishment of the International Securities Group (ISG) in mid-1989 to provide investment banking services to corporate clients in developing countries. ISG (now part of the Securities and Syndications Division) serves developing countries and the international, financial, and business communities in the following capacities:

- as an advisor to companies in developing countries, encouraging them, when appropriate, to investigate the long-term advantages of issuing securities abroad;
- as a partner with some of the prominent international investment banks, in bringing companies from the developing countries to the international capital markets. IFC is actively involved in executing the securities offering, including direct sales to institutional investors; and

• as a provider of information to the world investor community on investment opportunities in securities of emerging markets. ISG's efforts are complemented by IFC's Emerging Markets Data Base, which provides detailed financial information on over 800 companies listed on the stock exchanges in 20 developing countries.

Initially, IFC attempted to provide companies in the developing world access to the international capital markets through country funds, which invest in a large number of companies in a specific country. This was a logical first step, as the professional fund managers select the companies in which investments are made, and investors themselves do not need detailed knowledge of various companies in each developing country. In addition, foreign investors initially considered country funds "safer" than investing in specific companies, given that these investments are typically diversified across several industries in a given country. Most of the companies in which country funds invest are quoted on local stock exchanges.

IFC has been instrumental in establishing 26 country funds (including debt-to-equity conversion funds), targeting markets as divergent as Argentina, Brazil, Chile, Hungary, Indonesia, Malaysia, Mexico, the Philippines, Portugal, the Republic of Korea, Thailand, and Turkey. In addition, IFC has helped create several multicountry and regional funds. We estimate the total current market value of country funds invested in developing countries at over $10 billion. With country funds having become a well-accepted product, IFC is going a step further by assisting individual companies located in developing countries to issue securities internationally. Investors who were initially only willing to risk investing in developing country companies on a diversified basis through country funds are gradually becoming interested in specific companies.

Helping companies gain access to the international markets is a three-stage process.

Identifying the appropriate developing country company for securities issues. For countries that are "newcomers" in terms of corporate access to the foreign capital markets, initial securities issues should generally be undertaken by large companies. Such companies usually have significant project-related funding needs and would be best able to appreciate the importance of diversifying funding beyond the local capital markets; they are typically quoted and actively traded on the local stock exchange. In addition, foreign investors are most likely to be interested in larger companies, not only for reasons of name and prestige but also because larger companies are likely to issue securities of sufficient volume to ensure some liquidity in the financial markets. This is an important consideration for investors, since active trading will enable them to sell the securities they initially purchased, with relative ease and at an attractive price.

The company's track record (e.g., profitability and debt-servicing record) and the nature of its business are also important considerations. Utilities, for example, generate relatively stable income, making such companies particularly attractive compared with other developing country companies, whose earnings and performance are typically volatile. Export-oriented companies (including commodity-based companies) are also good candidates for international securities issues. Export receipts in foreign currency help the company meet debt-servicing obligations even in times of rapid devaluations of the local currency. Above all, it is important to identify companies that are strongly positioned (relative to competitors) in those sectors most likely to benefit from the country's economic growth.

Arranging the securities issue. Once the appropriate company is identified, one or several financial intermediaries (e.g., IFC and investment banks) proceed to structure the securities, that is, determine the nature and terms of the offering. This process involves discussions with the company's management to arrange for the financial instrument most appropriate to the company's funding needs. In some cases, the company needs additional equity to increase its capital base in undertaking a planned expansion. In other cases, the company may have a very low debt-to-equity ratio and may primarily need debt financing. Quasi-equity instruments, such as convertible bonds or bonds with equity warrants, may be appropriate for a company unwilling to issue shares because of the current low valuation of its stocks, but would face a high cost if it were to issue a debt instrument with no equity component.

In determining the appropriate structure for the securities issue, the company's needs must be balanced against investor preferences. In certain cases, the company may not have the full range of choices in the instruments it is able to issue. Certain companies in highly indebted developing countries may not be able to issue debt instruments at reasonable costs. Investors, quite naturally, will be cautious about purchasing debt securities of a company located in a country with serious debt-servicing difficulties. The same investors may, however, be willing to purchase equity securities, if such securities are inexpensive—that is, in terms of price to earning ratios—and have a potential for significant capital gains.

Once the structure of the offering is established, the instrument must be "priced" by assessing likely demand. Usually, the financial intermediaries are called upon to use their investor contacts and experience in evaluating the price at which an instrument is likely to be sold. But this is often difficult in the case of securities issued by companies from developing countries, since there are few comparable companies whose existing securities issues could serve as the benchmark for determining prices.

When the company agrees to the proposed structure and pricing of the instrument, the financial intermediaries then proceed to place the issue with investors (i.e., sell it). However, before proceeding with the marketing of the issue, approval for the offering must be obtained from the authorities in the developing country in which the company resides, and in certain cases, in the country where the securities are issued. There must also be a clear understanding on the tax treatment of income and capital gains realized by the investors and on the ability to repatriate such gains freely.

Placing the securities issue. Given the risks involved in purchasing these securities, what types of investors participate? Initially, a large proportion of investors interested in securities issues (particularly bonds) of a developing country company tend to be "flight capital" investors—that is, if a company from country X wishes to tap the international markets, one can expect significant participation by investors of this country who hold assets abroad. This is natural given these investors' familiarity and stronger ties with the company.

As the number of companies in developing countries undertaking such issues increases, however, the core group of investors gradually shifts to international institutional investors, such as pension funds, insurance companies, and other financial institutions. Such investors seek to further diversify their assets and realize a high investment return. As shown by IFC's Emerging Markets Data Base, the performance of stock markets of developing countries is not, on the whole, strongly correlated with the performance of industrialized markets. Even when the stock markets of the industrialized countries are performing poorly, those of the developing countries could be performing well. This difference in performance enables the equity investor to diversify risk by buying developing country securities. More and more international investors are becoming aware of this advantage. ■

Protection in Sub-Saharan Africa Hinders Exports

High rates of protection hurt the export performance of many African nations, including the poorest

Dean DeRosa

Sub-Saharan African nations face major obstacles as they tackle their extensive economic problems: loss of international competitiveness, low productivity, and mounting external debt, among others. While not all of their problems are of their own creation, one is definitely so. Recent research shows that protection of domestic economies and products against international competition is responsible for major economic losses for most countries in the region.

Structural adjustment programs supported by multilateral agencies, such as the IMF and the World Bank, have emphasized, among other things, the need for countries to open their economies. This can be done by adopting more flexible exchange rate policies, liberalizing exchange and trade regimes, and allowing domestic relative prices to adjust to levels close to those in the world markets. If they follow this course, it is argued, many African countries—including the poorest countries in Africa—could restore international competitiveness, increase the productivity of their investments, and enjoy a higher level of economic growth, led in particular by a more robust export sector.

In opting for protection and against a more outward-oriented development strategy, African countries frequently cite weak world market conditions for primary commodities traditionally exported by African countries and heightened protectionism in many industrial countries. Liberalization of imports, on the other hand, is seen by these countries as producing trade imbalances, making their external payments positions more precarious.

While plausible on the surface, this position is not borne out by an examination of the evidence. The commodity terms of trade of Sub-Saharan exports did fall substantially in the 1980s, but so did the terms of trade of other regions, including East and Southeast Asia. Yet, the other regions showed higher rates of real growth of exports and output. Sub-Saharan Africa has also had more favorable access to industrial country markets than exports from other developing regions, mainly because primary commodities from the region face low tariff rates and quantitative restrictions, and such exports are frequently eligible for preferential treatment under the import duty schemes of most industrial countries.

If Sub-Saharan countries had opted for open economic policies, they would have unleashed a strong supply-side response from domestic producers. Specifically, to balance increases in imports under more liberal trade arrangements, the real exchange rate would have adjusted—typically, to a depreciated level, increasing the profitability of exports and so increasing export revenues without the need for special programs or incentive policies to promote exports.

This article presents an overview of the extent and structure of nominal protection in a large sample of Sub-Saharan countries. It also analyzes the effects of this protection on the real exchange rate and level of exports of these countries.

The information on protection presented here is based on the Trade Information System (TIS) of the UN Conference on Trade and Development (UNCTAD). The TIS is an inventory of import control measures in developing countries established to support negotiations to expand South-South trade on a preferential basis. It classifies restrictive import measures as tariffs, "para-tariffs" (other fiscal charges applied to imports), and nontariff barriers—principally, various forms of quantitative restrictions, foreign exchange restrictions, minimum price systems, and state trading monopolies. Tariffs and para-tariffs are measured in familiar ad valorem terms. Nontariff barriers, on the other hand, are measured in terms of frequency ratios, that is, the percentage of tariff-line items within an aggregate trade category that are affected by a given import regulation. The inventory includes information on the import restrictions of 23 Sub-Saharan countries (see footnote to Table 1), which together accounted for nearly 60 percent of the region's recorded trade in 1987, the most recent year for which published TIS data are available. (Since 1987, several Sub-Saharan countries, including Ghana, Tanzania, and Uganda, have begun to undertake important structural reforms, including changes in their trade policies and

The detailed study on which this article is based is available from the author. An earlier article considers the related issue of the trade effects of simultaneous exchange rate adjustments by Sub-Saharan African countries; see "Will Contemporaneous Devaluations Hurt Exports from Sub-Saharan Africa?" by Joshua Greene and Dean DeRosa in Finance & Development, *March 1991.*

practices. The UNCTAD information presented, however, still describes essential aspects of the trade regimes of most of the sample countries.)

Extent of protection

The low-income Sub-Saharan countries enforce the highest rates of protection, with a high frequency of nontariff measures (see Table 1). Because of widespread discretionary licensing of imports and restrictive foreign exchange controls, the average frequency of nontariff barriers is over 90 percent in the lowest-income countries (below $300 per capita income) and over 75 percent in the upper low-income countries (between $300 and $500 per capita income). By comparison, the frequency of these barriers is substantially lower, at about 50 percent—but still very high—in the middle-income countries (per capita income above $500).

Both tariff protection and the frequency of foreign exchange controls are somewhat higher in the upper low-income countries than the other sample countries. Whereas the middle- and lowest-income countries enforce average rates of tariff and total fiscal charges (including para-tariffs) in the range of 20–30 percent, the average rate of import duties in the upper low-income countries is about 40 percent. The average for the upper low-income countries results mainly from the high rates of import duties in the two most populous countries in the group—Kenya and Sudan. The three groups of countries exhibit a similar pattern of foreign exchange controls.

Discretionary import licensing is by far the most widely applied quantitative restriction. Some countries, however, rely heavily on the use of quotas (Kenya) and prohibitions (Madagascar). Other frequently employed nontariff barriers include minimum price systems and state trading monopolies. Middle-income countries frequently administer prices of imports. All the sample Sub-Saharan countries had state trading monopolies. Except in Angola, Mozambique, and Tanzania, where state monopolies controlled a high proportion of imports in 1987, minimum price systems and state trading are much less frequent than either quantitative restrictions or foreign exchange controls in most countries.

Detailed data underlying the summary presented in Table 1 reveal a fairly common pattern of nominal protection in the 23 sample countries for broad categories of primary commodities and manufactures. Foremost, they reveal that the Sub-Saharan countries maintain escalating rates of tariff and other forms of protection against increasingly labor-intensive goods. In addition, for food security reasons, these countries apply high rates of protection against food imports, especially cereals such as maize, rice, and wheat. Finally, among other items, imports of labor-intensive apparel and other textile products are frequently controlled, especially through minimum import prices and the operations of state trading monopolies. Given that the Sub-Saharan countries themselves are predominantly low-wage economies, the emphasis on restricting labor-intensive imports is somewhat incongruous. An explanation may be that organized labor in the modern sector of these countries (the sector that competes with imports) enjoys a wage rate higher than competitive levels. This, in turn, may encourage adoption of more capital-intensive technologies than otherwise and reduce competitiveness except behind high tariff walls and other forms of protection.

Protection and export performance

The levels of protection in Sub-Saharan countries are substantially higher than in most other developing countries. Such discrimination against foreign goods reduces the scope for greater economic efficiency and welfare and hinders the region's exports.

There is a close relationship between protection, the real exchange rate, and the level of a country's exports. Essentially, restrictions on imports impose a tax on exports. When a country restricts its imports, the import-competing sector increases its use of domestic resources in order to expand output to meet a larger share of local demand for traded goods. This causes the cost of domestic resources to rise, making exports based on those resources less competitive and, as a consequence, results in an appreciation in the real exchange rate of the country. The subsequent decline in exports often will match the protection-induced fall in imports, with the result that there is no improvement in the external balance to the extent that the stance of macroeconomic policies remains the same.

In the case of trade liberalization (treated below), the same economic process works in the reverse. Lowering tariff and other barriers to imports reduces the implicit taxation of exports by reducing the extent of import substitution in the local economy, thereby lowering the cost of domestic resources and causing the real exchange rate to fall. The resulting increase in the profitability of exports ensures that exports expand sufficiently to match the

Table 1
Import restrictions in Sub-Saharan countries, 1987

	Tariff and other charges		Frequency of nontariff barriers (NTBs)[1]					
	Mean tariff	Total charges[2]	All NTBs	Quantitative restrictions: Licenses	Quantitative restrictions: Quotas	Quantitative restrictions: Prohibitions	Foreign exchange restrictions[3]	State trading monopolies
	(in percent)[4]							
Low-income countries	30	34	89	51	3	3	40	14
Lowest income	24	29	95	64	0	2	39	21
Upper low-income	41	43	77	28	9	6	43	...
Middle-income countries	22	30	48	29	1	1	18	...
All countries	29	33	81	47	3	3	36	14

Sources: UNCTAD Secretariat, *Handbook of Trade Control Measures of Developing Countries, 1987*, and *Handbook Supplement, 1987* (Geneva: UN Conference on Trade and Development, 1988).
... Indicates that statistics are not computable.
The low-income countries in the sample were:
Lowest income: Burkina Faso, Burundi, Guinea, Madagascar, Malawi, Mozambique, Tanzania, Uganda, Zaire, and Zambia.
Upper low-income: Benin, Central African Republic, Ghana, Kenya, Sierra Leone, Somalia, and Sudan.
The middle-income countries were: Angola, Cameroon, Congo, Côte d'Ivoire, Senegal, and Zimbabwe.
[1]Percentage of tariff lines affected by NTBs, excluding restrictions on imports of alcohol and tobacco.
[2]Customs duties plus customs surcharges and surtaxes, stamp taxes, certain other fiscal charges, and tax on foreign exchange transactions.
[3]Advance import deposits, multiple exchange rates, and licensing or other restrictions on the acquisition and use of foreign exchange.
[4]Statistics by country are simple averages of rates of protections across trade categories. Averages for country groups are computed using 1987 population levels as weights.

Table 2
Estimated effects on exports of import liberalization by Sub-Saharan African countries

	Upper estimates[1]					Lower estimates[2]				
		Volume					Volume			
	Relative price[3]	Primary commodities	Manufactures	All goods	Change in value	Relative price[3]	Primary commodities	Manufactures	All goods	Change in value
		(In percent)			(In millions of US dollars)[4]		(In percent)			(In millions of US dollars)[4]
Low-income countries	38.5	34.5	57.8	37.3	1,670.0	16.7	15.0	25.0	16.2	735.7
Lowest income	37.5	32.6	56.3	36.1	976.1	15.8	13.9	23.8	15.3	396.2
Upper low-income	40.3	37.9	60.4	39.5	693.8	18.2	17.1	27.3	17.8	339.5
Middle-income countries	15.1	10.7	22.6	11.7	984.9	8.8	6.5	13.2	7.0	568.5
All countries	34.1	30.0	51.1	32.5	2,654.8	15.2	13.4	22.8	14.5	1,304.2

Source: Comparative static analysis using the multi-commodity model for each country, using 1985 trade flows, 1987 import duties, and NTB frequency ratios, and assuming constant international terms of trade. Primary sources of data are UNCTAD Secretariat, *Handbook of Trade Control Measures of Developing Countries* and *Handbook Supplement, 1987* (Geneva, UN Conference on Trade and Development, 1988); and World Bank, Trade Analysis and Reporting System (based on UN Series D Commodity Trade Tapes).
[1]Assuming import duties are reduced to 10 percent and administered imports are increased by 25 percent.
[2]Assuming import duties are reduced to 10 percent and administered imports are increased by 10 percent.
[3]Price of exports relative to nontraded goods.
[4]Additional export value per annum, measured in 1985 dollars.

increase in import demand.

Empirical model. To measure the effects of protection on the 23 Sub-Saharan countries' exports, a simple, multicommodity model of trade and exchange rate adjustment was used. The model assumed that the international terms of trade of these countries are exogenously determined. It employed a common set of assumed values for price elasticities of import demand and export supply of five broad categories of traded goods (foods, agricultural raw materials, mineral fuels, minerals and metal ores, and manufactures) in each of the sample countries, selected on the basis of published estimates of long-run price elasticities for foreign trade by African and other countries.

The multicommodity model was used to gauge the trade and exchange rate effects of far-reaching import liberalization in each of the 23 Sub-Saharan countries under review. This liberalization was represented by the reduction of import duties to a uniform rate of 10 percent and an increase in the volume of administered imports by alternative "upper" and "lower" *a priori* estimates of the extent to which nontariff barriers restrict imports. Reduction of import duties to 10 percent amounts to a substantial proportional reduction of *ad valorem* duty rates in most sample countries. For the high-tariff, upper low-income countries, the reduction is about 70 percent, while for the remaining countries, the reduction is about 50 percent of existing duties.

The implications of nontariff barriers could not be well captured by the simple model, because these barriers take many different forms and often have indirect effects on domestic prices. In the simulation exercise, nontariff barriers were simply regarded as restrictions imposed by national authorities to achieve quantitative limits on imports. Accordingly, as indicated by the frequency of nontariff barriers in each trade category, imports of each country that are predominantly subject to nontariff barriers were assumed to be strictly controlled, and the model assessed the effects of increasing the volume of these imports by, alternatively, an upper estimate of 25 percent and a lower estimate of 10 percent.

Results. The empirical results, which are essentially long-term in nature and do not include possible short-term costs of adjustment, indicate that import liberalization increases the value and volume of exports through the adjustment of export prices (relative to nontraded goods). After the liberalization, the price of exports (which is the inverse of the real exchange rate in the model) was estimated to be higher, on average, by about 34 percent in the upper case and about 15 percent in the lower case (see Table 2). Countries with the highest rates of tariff and nontariff protection showed the most "overvalued" real exchange rates because of protection. In the case of Somalia, the extremely overvalued exchange rate—which led to increases in the price of exports of between 140 and 56 percent after the liberalization—resulted from the country's high frequency of nontariff barriers, combined with an especially low level of recorded official exports in relation to imports. In other countries (e.g., Guinea, Central African Republic, Côte d'Ivoire, and Congo), where protection was low and recorded levels of exports relative to imports were considerably greater, the estimated effect of protection on the price of exports and the real exchange rate was relatively modest—as low as about 5 percent.

On export performance, the empirical results suggest that protection in the sample countries reduced the combined annual exports of the 23 Sub-Saharan countries by between about 3.5 percent and 2 percent of gross domestic output (GDP) each year, or between $2.7 billion and $1.3 billion a year in 1985 dollars. These estimates represent the loss of export revenues by the sample countries, on average, by between about 32 and 15 percent annually. Because of their higher rates of protection, the low-income countries "lost" the most potential export revenue, between about 37 and 16 percent on average. The other countries also experienced appreciable losses of potential exports—between about 12 and 7 percent of their total exports on average, as a result of protection.

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Disaggregated by commodity categories, the results indicate that producers of primary commodities suffered the largest losses in export earnings because of the restrictive trade regimes in their own countries. Notably, they also suggest that protection appreciably inhibits the expansion of nontraditional exports. To the extent that export supply elasticities are higher for manufactures than primary commodities in Sub-Saharan countries (that is, exporters can quickly produce more manufactures to meet increased demand), the simulated import liberalization promotes greater proportional expansion of nontraditional than traditional (i.e., primary product) exports.

Finally, although the results are not summarized in Table 2, the multicommodity model estimated the impact of import liberalization on total import duties and found that the net effects on revenues would be moderate in some cases but substantial in others. Although many of the sample countries rely heavily on international trade taxes for fiscal revenues, in some countries customs regulations are poorly administered and often include special exemptions. Thus, even if Sub-Saharan countries were to dismantle import controls and reduce import duties to a uniform rate of 10 percent, and if they were simultaneously to enforce customs duties without exemptions, total duty revenues would not necessarily fall precipitously. The empirical results suggested that some low-income countries (Burundi, Kenya, Madagascar, Malawi, and Tanzania) would experience little change in their fiscal revenues under a liberal import regime. In most instances, however, the sample countries were estimated to experience significant reductions in import duty revenues (relative to GDP) of about 1–2 percentage points. To preserve the level of overall domestic savings, these losses might have to be offset by improvements in the revenue yield of other fiscal measures, where available. In any case, in all instances losses in import duties, if any, should be weighed against the expected enhancement of export performance and economic growth engendered by import liberalization.

Conclusion

The economic analysis and empirical findings summarized in this article support the view that high rates of protection in the Sub-Saharan countries are an important factor in the economic condition of these countries today and especially contribute to their poor export performance. More robust export performance and economic growth, however, cannot be regained by simply reforming trade policies, particularly to the extent that restrictive import measures reflect other political and economic rigidities. Countries must, therefore, pursue trade liberalization in association with other policy reforms. The most important areas needing reform frequently include industrialization policies that discriminate against agricultural and rural development, economic policies that inhibit financial development (including the growth of capital and foreign exchange markets), and regulatory and institutional arrangements that hinder wider investment by domestic as well as foreign private sector enterprises. ■

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Madagascar: Crafting Comprehensive Reforms

As it sought to overcome the constraints of the socialist economic structure that it had introduced in the 1970s, Madagascar began implementing a series of reforms from the mid-1980s, with help from the IMF and the World Bank

S. Rajcoomar

The heavy weight of administrative controls, extensive nationalization, and a poorly coordinated investment program that added to the burden of external debt—this list of obstacles to sustainable growth and financial stability is only a partial litany of the misguided policies pursued in Madagascar during most of the past two decades. The results were slow economic growth, a decline in real per capita GDP, and substantial imbalances in external and domestic accounts. Recent efforts by the Malagasy authorities provide strong evidence of the gains that can be made by moving to a stable and more open economic order, provided the political will to attack fundamental problems exists, and domestic efforts are supported by international assistance.

Madagascar initially focused on the attainment of financial stabilization, with complementary measures to open up the economy to competition. It also tried to reform and restructure the public enterprise sector, formulate a new social policy, and institute a strict public expenditure control program. As a result, the external current account deficit was reduced significantly, reflecting in large part a sharp cut in the fiscal deficit, while gross international reserves rose markedly. Meanwhile, the authorities followed a prudent monetary policy, initiated the structural reform process, and removed some of the distortions between traded and nontraded goods. Helping this process were substantial inflows of capital and several debt reschedulings by the Paris Club and other official creditors and by commercial banks, as well as a significant amount of bilateral debt cancellation. Both the IMF and the World Bank assisted the Malagasy authorities to help change the economic course of the country over the 1980s, with a series of arrangements and loans.

While a number of structural problems remain and self-sustained growth is not yet assured, the nature of the reforms undertaken by Madagascar over the past few years reflects the importance of comprehensive change and long-term commitment. In this case, the move from a socialist planned economy to a competitive market-oriented one has been phased over a relatively short period, despite the deeply rooted problems of the previous economic regime. Eventual success, however, will depend on how well these policies are maintained over time and on external conditions.

Table 1
IMF arrangements and World Bank adjustment operations with Madagascar, 1980–89

Type of arrangement/facility	Date approved	Approved amount
IMF arrangement and special facilities		(In millions of SDRs)
Stand-by (2 years)	June 27, 1980	64.5
Compensatory financing facility	July 15, 1980	29.2
Stand-by (14 months)	Apr. 13, 1981	109.0
Stand-by (1 year)	July 9, 1982	51.0
Compensatory financing facility	July 9, 1982	21.8
Stand-by (1 year)	Apr. 10, 1984	33.0
Compensatory financing facility	June 27, 1984	14.4
Stand-by (1 year)	Apr. 23, 1985	29.5
Compensatory financing facility	May 28, 1986	16.1
Emergency assistance	May 28, 1986	16.6
Stand-by (18 months)	Sept. 17, 1986	30.0
Structural adjustment facility	Aug. 31, 1987	46.5
Stand-by (10 months)	Sept. 2, 1988	113.3
Enhanced structural adjustment facility	May 15, 1989	76.9
Bank adjustment operations		(In millions of US dollars)
Industrial sector adjustment credit	Jan. 15, 1985	60.0
Agricultural sector adjustment credit	Aug. 5, 1986	60.0
Industry and trade adjustment credit	June 30, 1987	100.0
Public sector adjustment credit	June 29, 1988	127.6

Sources: IMF, Treasurer's Department, and World Bank, Statement of Development Credits, December 1990.

Background

In attempting to introduce a Malagasy-style socialism, the Government, in the mid-1970s, adopted the Charter of the Revolution. Madagascar withdrew from the Franc Zone and imposed administrative controls in most areas of the economy, involving the nationalization of

several sectors, including the banking system. As a result, the economy grew at a slow pace, with real GDP rising at an average annual rate of less than 2 percent, implying a steady decline in real per capita GDP.

To accelerate the growth rate, a large-scale investment program was implemented between 1978 and 1980. Given the absence of proper coordination, and an efficient system of project implementation, this had little lasting impact on the country's productive capacity, but ended up quadrupling its external debt. At the same time, the Government pursued an expansionary financial policy that was aggravated by unfavorable movements in its terms of trade. Quantitative restrictions on trade were intensified, resulting in substantial external and domestic disequilibria, pronounced distortions in relative prices, and an accumulation of external payments arrears.

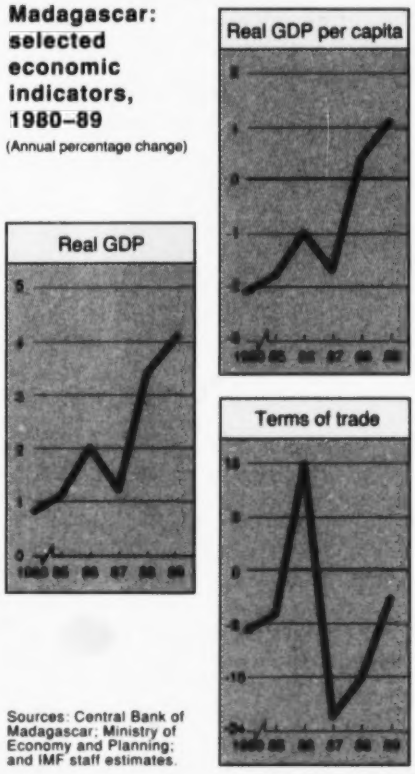
Against this background, since the early 1980s, the authorities have implemented several economic adjustment programs, supported by the IMF and the World Bank, aimed at reducing domestic and external financial imbalances (Table 1). These programs, which were designed to open the economy to competition, included far-reaching structural reforms in the areas of internal and external trade, the financial sector, public enterprises, social policy, and public expenditure programming. Meanwhile, the authorities implemented a prudent demand management policy. By the end of the 1980s, Madagascar had achieved considerable progress on the macroeconomic front: the external current account deficit was reduced significantly, owing largely to the improvement in the overall fiscal position, the pursuit of prudent monetary policy, and a narrowing of distortions in relative prices between traded and nontraded goods (see chart and Table 2). At the same time, the authorities accorded a greater priority to the social and environmental aspects of adjustment.

	1980	1985	1986	1987	1988	1989
			(In percent of GDP)			
External current account balance	–14.0	–8.7	–2.9	–6.0	–5.7	–3.5
Domestic savings	–1.4	0.9	6.2	4.9	7.2	9.1
Overall budget deficit	14.3	3.6	3.3	3.5	3.5	4.2
Debt service ratio[1]	18.1	88.6	89.8	98.6	105.1	100.0

[1]In percent of exports of goods and services, before rescheduling.

Madagascar: selected economic indicators, 1980–89

(Annual percentage change)



Sources: Central Bank of Madagascar; Ministry of Economy and Planning; and IMF staff estimates.

Structural changes

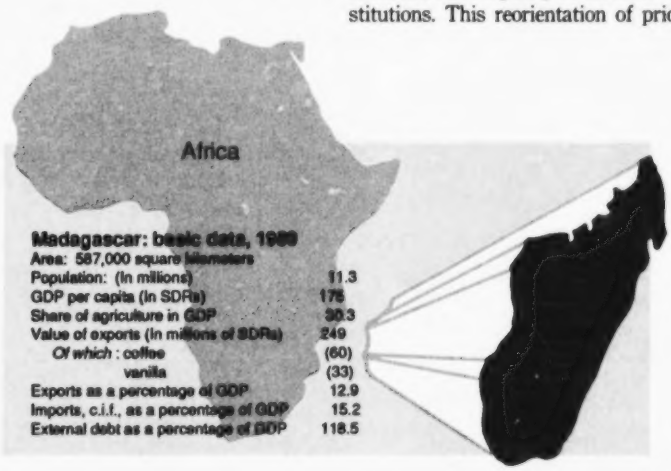
External reform. Although the Government was initially reluctant to adjust the exchange rate to a realistic level, it became evident by 1982 that the widening external current account deficit and difficulties in obtaining adequate external assistance would require substantial remedial action. Over 1982–87, the exchange rate was devalued on several occasions in the context of successive stand-by arrangements with the IMF, lowering the value of the Malagasy franc (FMG) by a cumulative total of 80 percent against the basket of currencies to which the currency was pegged. A mechanism was also set up to regularly adjust the exchange rate in light of the differences in the relative inflation rates vis-à-vis Madagascar's trading partners. The currency's exchange rate declined to the equivalent of FMG 2,014 per SDR at the end of 1989 from FMG 335 at the end of 1981.

Despite some initial resistance, the authorities took comprehensive measures in 1987–89 to reduce administrative barriers to exports and to eliminate government export monopolies and export licensing requirements. A new export law allowed exporters to export freely all their products (with the exception of vanilla) at prices negotiated directly with foreign importers, while the state export monopolies in pepper, cloves, and coffee were abolished. Moreover, the complex system of export taxation was simplified considerably and replaced by ad valorem taxes on traditional exports, involving a substantial reduction in the rates.

On the import side, a liberalized import regime was introduced in 1987, covering 25 percent of imports. This import regime was subsequently replaced by an open general license system for all imports, thereby eliminating the discretionary system of foreign exchange allocation. The Government also abandoned the requirement that importers provide domestic currency to cover 100 percent of the value of imports, allowing commercial banks to decide on the need for such guarantees, which in no case could exceed 20 percent of the value of imports. A comprehensive reform of the tariff system was begun in 1988 to promote efficient import substitution and export industries within the mixed public/private sectors. The aim was to reduce the effective rate of protection significantly, to 35 percent over four years, and to decrease sharply the dispersion of tariffs by limiting the range eventually to 10–50 percent. Progress in this area has been encouraging, and the program is expected to be completed on schedule. In the meantime, a significant liberalization of invisible transactions has taken place, with an emphasis on incentives for investment and exports.

Public enterprise reform. In 1988, with the assistance of the World Bank, the Government formulated a three-year program to rehabilitate the public enterprise sector and to reduce its predominance in the economy. After full implementation of the process of liquidation, divestiture, or restructuring, the public enterprise sector was expected to be cut to about half its initial size by 1991, while all the remaining public enterprises were to be reorganized or financially rehabilitated. Although some progress was made in several areas, the privatization and rehabilitation program was delayed, and a central entity was

established only in late 1990 to coordinate the overall reform program. The Government adopted a number of measures to limit the financial burden of public enterprises on the budget. A moratorium was imposed on the creation of new public enterprises in 1988, while the level of bank credit and budgetary transfers to 22 unviable public enterprises has been limited to the 1987 amounts. An overall ceiling on credit to public enterprises was also fixed under successive IMF supported programs (including no credit to a few unviable enterprises).


Africa
Madagascar: basic data, 1989
Area: 587,000 square kilometers
Population: (in millions) 11.3
GDP per capita (in SDRs) 175
Share of agriculture in GDP 30.3
Value of exports (in millions of SDRs) 249
Of which : coffee (60)
vanilla (33)
Exports as a percentage of GDP 12.9
Imports, c.i.f., as a percentage of GDP 15.2
External debt as a percentage of GDP 118.5

Financial sector reform. In order to further establish a dynamic and competitive financial system, thereby helping to stimulate private saving, in 1988, the Government embarked on a program of restructuring the state-owned domestic banking system by opening it to private domestic and foreign investors. A critical element of this operation was the restructuring of the portfolios of all three banks. This involved the liquidation of all non-performing and doubtful assets, followed by the partial privatization of two banks (with the participation of foreign partners).

Along with the reorganization and deregulation of the financial system, the monetary authorities were able to gradually reduce reliance on direct credit control in favor of indirect instruments of monetary control. This involved the modification of policies relating to minimum reserve requirements, the removal of the ceilings on credit for individual banks, and the phasing out of the system of prior credit authorizations. The authorities took initial steps to broaden the recently introduced money market, improve the mobilization of small savings, and widen the array of financial services offered by banks, including export financing.

Fiscal reforms. The Government's fiscal strategy has been geared toward generating additional saving, reinforcing the incentive framework through tax reform, and contributing to the rehabilitation and expansion of the productive capacity of the economy. In addition to withdrawing progressively from directly productive activities, the authorities assigned a higher priority to improving essential public services—notably social services and infrastructure—and enhancing the administrative capacity of the most critical institutions. This reorientation of priorities of the public sector demanded a prudent fiscal policy, with a gradual improvement in revenue performance and strict control on expenditure; this allowed the Government to repay a substantial proportion of its borrowing from the central bank.

On the revenue side, the main focus was on a continuation of the rationalization of the tax and tariff structures and a broadening of the tax base. The monitoring and control of the financial operations of the Central Government were also enhanced, and the structure of public spending improved. The Government initiated the reform of budgetary and management procedures on the basis of an IMF technical assistance report. Regarding capital expenditures, the system of annual formulation of a three-year rolling public investment program was improved, with the plan elaborated each year by August 31. Public investment policy has rightly placed strong emphasis on the rehabilitation and development of the country's economic and social infrastructure, thereby providing essential support for private sector productive activities.

Sectoral reforms. While the initial adjustment effort centered around financial stabilization, the Government formulated various sectoral programs to stimulate domestic production, particularly in the area of liberalization of trade in agricultural products. The strategy involved a sharp reduction in administrative controls and the streamlining and simplification of the regulatory and legal framework. With the liberalization of the internal marketing of all agricultural products, the Government began to remove controls from virtually all agricultural producer prices, consumer prices, and profit margins. It approved a new investment code and enacted legislation to establish industrial free trade zones; by the end of 1990, more than 100 franchises had been awarded under these two codes.

Lessons and prospects

Although the Malagasy economy has recorded substantial improvements in recent years in the context of successive adjustment programs supported by the IMF and the World Bank, many structural, institutional, and financial problems continue to constrain the prospects for growth. The Government will need to consolidate the gains obtained to date, while accelerating the pace of fundamental reforms. Given Madagascar's vulnerability to external shocks and heavy reliance on foreign assistance, unfavorable exogenous developments are likely to have an immediate adverse impact on the economy. The fragility of the economic and financial recovery was clearly exposed in 1990, when the country's international reserves declined to their lowest level in several years as the terms of trade deteriorated further.

With the experience of several countries confirming that progress in structural reform is a slow process, Madagascar must transform its economy more rapidly to enhance its flexibility and resilience in dealing with such shocks. In this regard, the immediate priorities should include quicker reform of the public enterprise sector, improvement of the public investment program, and streamlining of the institutional, legal, and regulatory procedures that have played a major role in constraining output. ■

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from Mauritius, is a Senior Economist in the Indian Ocean Division of the IMF's African Department. He holds degrees in Economics from East Anglia, Birmingham, and St. Andrews Universities, where he also taught.

Stefan Gerlach and Peter A. Petri (editors)

The Economics of the Dollar Cycle

The MIT Press, Cambridge, MA, USA, 1990, vii + 381 pp., $37.50.

Thomas Mayer (editor)

The Political Economy of American Monetary Policy

Cambridge University Press, New York, NY, USA, 1990, ix + 314 pp., $42.50.

Here are two books dealing with different facets of monetary economics: one international, the other domestic. Both provoke thought more by explaining why the right policies are hard to formulate than by trying to find easy answers to difficult questions.

To start with the international issues: Why did the US dollar rise so dramatically in the first half of the 1980s and then fall even more sharply in 1985–87? How did that cycle affect the world economy? And was this a problem that calls for a policy response, or should the market be left alone to determine exchange rates and payments balances? In December 1987, an outstanding group of academic economists gathered at Brandeis University to wrestle with these questions and to try to assess the implications of the dollar cycle for economic policy. The papers presented at that conference have now been collected and edited by two Brandeis professors, Stefan Gerlach and Peter A. Petri. The result is a generally quite clear and policy-directed compilation, which includes some stimulating discussion of the papers as well.

The questions posed above are obviously daunting, and it should not be surprising that even the finest economists are hard pressed to find convincing answers. Consequently, the most interesting papers in this volume are those that eschew trying to build castles in the sand and try instead to explain why we cannot know all that we seek to know. Paul Krugman, for example, discusses the failures of many popular explanations for the swings in the dollar's value, and he concludes with a call for a modest but elusive reform: We cannot draw lessons for policy, he notes, "until there is some willingness to abandon positions that have been decisively rejected by experience—even if those positions make for nice models" (p. 117). Peter Garber reviews the debate over whether the dollar's strength in the mid-1980s was just a speculative bubble, and he argues that we cannot answer that question until we first are able to evaluate the fundamental determinants of the dollar's value; but that prior issue has also proved elusive.

As for the future, there seems to have been a reasonably general agreement at the conference that if the United States hoped to balance its external accounts, it should not only reduce its budget deficit but allow the dollar's exchange value to decline further as well. That argument was made by James Tobin, Ralph Bryant, Rudiger Dornbusch, and others. It is worth noting, then, that three years later, the dollar had depreciated by a further 10 percent in effective terms, while the budget deficit had remained stubbornly high. The US current account deficit had declined from around 3½ percent of GNP to just under 2 percent, but further progress was proving difficult. This configuration of events is only part of a complex picture, but it does tend to vindicate the mainstream view of what was required.

On the domestic front, "Fed watching"—studying the decisions and the decision-making process of the US Federal Reserve System—has long been a favorite pastime of financial journalists, bankers, and others who in various ways depend on the Fed for their livelihood. In 1987, an American journalist, William Greider, carried this vocation to an apparent extreme with an 800-page book (Secrets of the Temple: How the Federal Reserve Runs the Country) that studied the institution, its leaders, and its role in American society in more depth (and with more vituperation) than one would have thought imaginable. Most monetary economists, on the other hand, have been content to study the results of monetary policy, without devoting much time to the human processes that give rise to those results.

Thomas Mayer, for the past three decades a University of California economics professor and a student of US monetary policy, decided that the topic "need not be left to journalists," and he invited some two dozen economists to write papers analyzing Federal Reserve policy making. The overwhelming impression one gets from reading these papers is that the individual policymakers and their responses to political pressures and bureaucratic biases are as important as the economic theories that underpin their work. Several chapters argue that Federal Reserve decisions cannot be adequately explained by estimating reaction functions, or by appeal to maximization of either the public welfare or the policymakers' own self-interest. The Federal Reserve is subjected to pressure from both the Congress and the Administration, but its leaders have worked hard and with much success to maintain a measure of independence from those pressures. The Fed's policies consequently have been formulated and implemented with discretion and have not generally been subjected to formal rules.

Most of the authors represented in Professor Mayer's book are critical of the Federal Reserve, and many of them would prefer a system of rules that would subject both the Fed and its political overseers to greater accountability. Even those favoring discretionary countercyclical policy, such as Elmus Wicker, find that the practice of it has fallen far short. Suggested reasons for the failures of Fed policies include incomplete use of available information (Wicker), reliance on poor forecasts (Raymond Lombra and Nicholas Karamouzis), reluctance to admit mistakes (Mayer), an absence of incentives to establish accountability (Edward Kane), and the reluctance or inability of the Congress to develop effective oversight (Nicholas Beck and James Pierce).

What is missing from these studies is a clear set of prescriptions for improvement. It is doubtful that any of these authors would argue that Congress could be counted upon to establish a set of rules that would lead to better outcomes. Independence and discretion in the implementation of rules will always be required, and perhaps the strength of this book —like that of Gerlach and Petri—is that it avoids looking for simple solutions for an extremely complex problem.

James M. Boughton

Michael E. Porter

The Competitive Advantage of Nations

The Free Press, New York, NY, USA, 1990, xi + 855 pp., $35.

Porter's objective in writing this volume is to extend his earlier work on the competitive strategy of firms to the national context. He hopes to learn why some nations prosper and others do not. Much interesting information is presented—a virtual shower of anecdotes that is often repetitive—but the author is more successful at presenting suggestive hypotheses than at developing or testing a theory.

The first few pages quickly shift from the basic issue—the determinants of national productivity and productivity growth—to a focus on the success of industries in international markets, which absorbs the rest of the book. Porter terms such success "international competitiveness," which he defines as significant exports of goods and services, or significant foreign direct investment by an industry. The empirical link between national productivity and international competitiveness is not presented, but merely asserted. No mention is made of what determines the productivity of industries producing nontraded goods. For example, one reason for the high level of productivity in the United States is the high productivity of US service industries, but these industries are not big exporters. And success in exporting commodities and simple manufactured goods need not imply high productivity.

Part I covers over one hundred case studies of industries in ten leading developed nations. Each of these case studies is of an internationally competitive national industry. How these industries were chosen from the many hundreds of possible cases is not explained. A few are presented as self-contained case studies in Part II. An analysis of these cases leads Porter to identify four major determinants of international competitiveness: factor conditions (land, labor, and capital); demand conditions (composition and size of home market demand and its relation to foreign demand); related and supporting industries (presence of such industries that are already internationally competitive); and firm strategy, structure, and rivalry. Other minor determinants are chance and government policy. The four major factors provide an organizing framework used to analyze why selected industries are internationally competitive.

Porter describes the current competitive situation (in terms of industrial exports and economic performance) of eight countries (Germany, Italy, Japan, Korea, Sweden, Switzerland, the United Kingdom, and the United States) in Part III. Then in Part IV, he goes on to make suggestions about appropriate strategies for companies to pursue and appropriate policies for governments to implement, along with presenting diagnoses and suggestions for the eight countries reviewed.

The problem posed in the book is the matching of industries and nations, each of which has many varied attributes. The question is: Which nations are the best locations or home countries for which industries? The analysis is carried out by reviewing the findings of the numerous case studies on almost an individual basis, and the transition from these instances to the overall performance of the country is unsupported. This leads to a lack of clarity, much repetition, and little hard measurement. This work would be much enhanced by more use of statistics and less use of example.

The author persistently refers to his analytic framework of four principle determinants as a theory. The framework is not tested in a rigorous way, nor is it used to predict which firms will emerge as internationally competitive in which countries. The author states that his framework could be used for predicting future industry evolution (p. 175), but he never uses it for this purpose. What the book presents is a rich set of hypotheses about the determinants of export success, with little analysis of the relative importance of various determinants.

The analysis of government policy is very modest and is covered for developing countries in only five of the book's 735 pages. Governments should foster a competitive environment, promote education, invest in infrastructure, and expand research capacity. In addition, increasing the level of savings and investment and promoting the development of efficient capital markets are deemed crucial for growth. The author is not enthusiastic about the efficacy of macroeconomic policy in general, nor of devaluation in particular as a stimulant for international competitiveness. However, he sees a greater role for government policy in developing than in developed countries.

This book is a bountiful source of information about specific industries, and it provides a useful taxonomic device for analyzing successful industries. Firm managers will find much that is relevant, but there is little in the way of specific recommendations for government policymakers or for the analyst of developing countries.

Gregory K. Ingram

Lance Taylor (editor)

Socially Relevant Policy Analysis

The MIT Press, Cambridge, MA, USA, 1990, x + 379 pp., $37.50.

The phrase "socially relevant" in the title of this book does double duty. The book is essentially a collection of structuralist computable general equilibrium (CGE) models for developing countries, and the phrase "socially relevant" is meant to apply both to its structuralist (as opposed to neoclassical) approach as well as to the CGE methodology, which lends itself to a much greater degree of microeconomic detail than is typically found in small mainstream macroeconomic models. The book consists of a lengthy overview essay by Lance Taylor, followed by twelve chapters consisting of applications to individual countries by various authors. The overview essay appropriately provides a useful description of the tenets of structuralism and a brief synopsis of CGE methodology. Of these, the former is by far of greatest interest.

Taylor identifies structuralism with a number of general hypotheses about developing country macroeconomics. These include the recognition that (1) many agents possess significant market power; (2) LDC macro-causality tends to run from "injections," such as investment, exports, and government spending, to "leakages," such as imports and saving; (3) money is often endogenous; (4) the structure of the financial system can affect macroeconomic outcomes in important ways; and

(5) in the LDC context, imported intermediate and capital goods, as well as direct complementarity between public and private investment, are likely to be empirically important. In spite of the occasional polemical tone of the essay, many of these hypotheses would command wide agreement among developing country macroeconomists, suggesting that structuralism—at least in this sense—may have made its point.

The country-specific applications, which comprise the rest of the book, embody many of these structural features. The CGE methodology is applied consistently in these chapters, though the structures of the models differ in major ways depending on the policy questions being addressed. The chapter on Mexico, for example, departs substantially from CGE tradition by incorporating a fairly detailed financial sector. This is necessitated by that chapter's focus on the effects of devaluation in a "dollarized economy" (i.e., where a large number of US dollars are held by residents). Overall, the quality of the exposition in the applied chapters is good, and the workings of the country models are fairly transparent. The analysis is indeed focused on "socially relevant" questions, such as the optimal design of food subsidy programs in Mexico, the distributional effects of price controls in Nicaragua, the effects of raising administered prices in India, and so on. In general, the findings are reasonable and would not offend many nonstructuralists. It is not surprising to find, for example, that devaluation can be contractionary if imported intermediate inputs are important, that targeted food price subsidies are superior to income transfers and general price subsidies, or that raising administered prices can be stagflationary.

All told, whatever one thinks of the CGE methodology, this is a collection of sensible papers that address, in a careful way and with attention to country circumstances, policy issues that repeatedly confront developing country macroeconomists. As the papers here illustrate, the macroeconomic tradition that this book reflects continues to contribute to the formulation of responsible macroeconomic policy in developing countries.

Peter J. Montiel

Frank A. Cowell

Cheating the Government: The Economics of Evasion

The MIT Press, Cambridge, MA, USA, 1990, xii + 267 pp., $27.50.

This book is a comprehensive state of the art primer on the economic analysis of tax evasion. Though he makes no concession to those who cringe at mathematical modelling, Cowell succeeds in combining technical elegance with a healthy dose of facts and anecdotes, excellent writing, and frequent wit. The notes to the chapters are a particularly rich source of material.

The basic premise of the argument is that the problem of tax evasion or, more generally, cheating the government, is intrinsic to public finance. Self-interested individuals will not voluntarily finance the optimal amount of public goods, preferring instead to maximize their own consumption, while enjoying the public works provided by others. This creates a need for a government tax enforcement strategy.

The first few chapters are devoted to the definition of the problem and an examination of its scope. Cowell compels the reader to admit that the line between illegal evasion and legal avoidance is fine indeed and clearly varies from country to country. This point is important later on when optimal enforcement policy is discussed and provides an entry into the issue of the appropriate extent to discourage evasion or avoidance. Furthermore, the existence of ambiguity in the tax law implies that harsh penalties may not be viewed by society as fair, if the rules of the game are not simple and well understood.

The middle chapters proceed with the development of models of taxpayer behavior and the empirical evidence supporting them. The standard theoretical results are presented—that evasion depends on the probability of being caught, the severity of the penalty, and the risk aversion and income levels of individuals. Another important factor, and one that Cowell has examined in greater depth elsewhere, is the availability of tax avoidance strategies, tax shelters, and the possibility of "exiting" to the informal or underground economy. Building on the models of taxpayer behavior, the last chapters address the issue of the appropriate government response.

An important theme underlying the last chapters, on policy agenda and policy designs, is that, although, on paper, eliminating evasion is a trivial task—merely increase the penalty to the point where no sane individual would dare cheat—there are significant problems with this solution, primarily that in most societies the nature of the crime must bear some relation to the nature and magnitude of the punishment. Tax evasion is not viewed in most societies as a particular evil act and unduly harsh penalties for evasion would not be enforced. In addition, high penalties raise the issue of the potential venality of tax collectors, who would be all the more tempted to make side deals. Consequently a more sophisticated strategy for tax enforcement is necessary.

An optimal strategy would depend on a number of factors. One important guideline is to allocate resources so that an appropriate relation is maintained between the cost of enforcement and the revenue received directly from those audited, and indirectly from any increase in general honesty. A second consideration, one having important equity implications, is the appropriate trade off between penalties and enforcement effort. At a more microeconomic level, the design of optimal audit strategies depends on the information available to the government. This area has been researched quite actively of late and indicates that significant improvements over "blind" audit strategies are available that may greatly improve the efficiency of the tax collector. An improvement in the use of information—mainly from tax returns—may, however, lead to an exodus to the underground economy. The possible resultant economic losses would mitigate the gains from effective enforcement.

The primary strength of the argument in this book may be, for some readers, a source of disappointment. Having carefully constructed a treatise on tax evasion, the author maintains his intellectual honesty by shunning sweeping arguments and proposals. The issues are fundamental, complex, and interesting. Readers of "Cheating the Government" will obtain much useful insight, but will find no quick and simple solutions to the puzzles posed therein.

Peter Stella

David Pearce, Anil Markandya, and Edward B. Barbier

Blueprint for a Green Economy

Earthscan Publications Ltd., East Haven, CT, USA, 1989, xvi + 192 pp., $13.95.

Originally written as a report to the UK Department of the Environment, this little book is both a primer on environmental economics for politicians and a challenge to economists to wake up to the critical importance of the environment for economic theory and policy. The topics covered include the meaning of sustainable development, valuing the environment, environmental accounting, project appraisal, discounting the future, and market-based incentives for environmental improvement. The book is intended for the layman, even though some rather advanced discussion is encountered in the chapter on discounting. In general, the authors have done an admirable job of advancing the discussion, while at the same time remaining within the intellectual confines of neoclassical economics. But, the book bears the mark of its origins—a government report done under a deadline with no time for second thoughts and polishing. A more polished discussion of the same material is provided by Pearce in his recent text with R. Kerry Turner—*Environmental and Resource Economics*—which is also highly recommended.

On the definition of sustainable development, the report rejects the "nondeclining utility approach" as fundamentally non-operational and advocates a definition in terms of constant total capital stock, later sharpened to constant natural capital. In spite of the difficulties of defining constancy of capital, their case seems very convincing. Certainly ecologists would also find this approach more satisfactory. So too, should economists, since this is a generalization of J.R. Hicks' definition of income as the maximum annual consumption that still leaves capital intact at the end of the year—only capital is now taken to refer mainly to natural capital.

For those involved in environmental projects, the chapters on project appraisal and on discounting the future will be of special interest. The most promising suggestion for integrating sustainability into project appraisal is simply to require that every project be sustainable—that is, that it not degrade the natural capital stock on which it depends either for regeneration of its raw material inputs or absorption of its waste outputs. If a project does either of these things, as frequently must be the case, then that project must be coupled with a joint or shadow project that will rebuild the degraded natural capital, such that the two together meet the condition of maintenance of natural capital stock. The two are then considered as a unit and ranked against other sustainable projects by conventional criteria. This seems to me a proper principle, even though there will surely be difficulties in carrying this through. What is really surprising, however, is that the authors then immediately retreat from this principle saying that "at the level of each project such a requirement would be stultifying. Few projects would be feasible." They advocate applying the principle at a program (multi-project) level, so that the nondegradation of natural capital stock criterion would only hold on the average for the set of projects in the program and not for each project. This does not seem to help at all and in fact sacrifices efficiency by "socializing" the costs of sustainability among all the projects in a program, instead of making each project bear its own full marginal social opportunity cost—a principle eloquently defended elsewhere in the book. Nevertheless, the basic principle is a powerful one and the question of the best way to apply it merits more discussion by economists.

The chapter on discounting is the best short discussion I have seen of the issue. The authors' basic point is that the discount rate should reflect the combined influence of time preference and productivity, and should not be altered to take account of environmental externalities. The latter should be incorporated directly in the cost and benefit estimates of the project and not indirectly in a doctored discount rate. Indeed, they argue, it is hard to know which is more environmentally friendly, a high or low discount rate. A high discount rate speeds up depletion of nonrenewables and rotation periods of renewables, and thus seems unfriendly to the environment. But a low discount rate lets a greater total number of projects be approved, all of which also put demands on the environment. It is hard to tell *a priori* whether the total investment effect will be greater or less than the more rapid exploitation effect—another topic that should engage the discussion of economists.

Herman E. Daly

Neil G. Kotler

Sharing Innovation

Global Perspectives on Food, Agriculture, and Rural Development

Smithsonian Institution Press, Washington, DC, USA, 1991, v + 265 pp., $12.95 (paper).

This very readable book presents the papers and proceedings of an international colloquium on food and agriculture held at the Smithsonian Institution, in conjunction with the awarding of the 1989 World Food Prize to Dr. Verghese Kurien, chairman of the National Dairy Development Board ("Operation Flood") in Anand, India.

The papers review a number of success stories in agricultural development: the Awe community project in Nigeria; the green revolution in Asia; advances in dryland farming technology in India; the Iringa integrated nutrition project in Tanzania; the growth of Chile's fruit and vegetable export industry; and the "Operation Flood" dairy development program in India. With few exceptions, the authors played vital roles in the developments they describe, and unlike books written by "outside" experts, there are clear messages here from key practitioners about the factors that they think led to success.

Despite the diversity of experiences reported, a clear message emerges about the importance of involving local, community-based, and often private institutions in any development project. Farmers and rural communities must have the freedom and flexibility to act in accordance with their own perceived needs, and development endeavors must begin with a proper understanding of those needs and a clear vision of how to reinforce a community's ability to act. Remarkably, there is very little emphasis in the papers on the role of the public sector, other than with respect to maintaining a conducive policy environment.

The book includes a verbatim account of the discussions that followed the presentation of the papers. While some useful condensation might have been achieved with the aid of rapporteurs' reports, there are sufficient gems (e.g., Dr. Kurien's informal comments on what really makes Operation Flood work, pp. 224–28) to make much of the discussion a useful read.

Peter Hazell

BOOKS *in brief*

Kate Phylaktis and Mahmood Pradhan (editors)

International Finance and the Less Developed Countries

St. Martin's Press, New York, NY, USA, 1990, xii + 193 pp., $59.95.

With fears about the impact of the debt crisis on the world's financial system having abated, attention has now shifted to how individual debtors are coping with the crisis. This book strikes a nice balance between a number of theoretical and empirical issues that arise in this context. The opening paper by Moshin Khan on evaluating the effects of IMF-supported adjustment programs is a readable and comprehensive guided tour of the work that has been done in this area—and of its limitations; Peter Stanyer offers a well-argued pessimistic view of the securitization of bank debt as a solution to the problem of debt overhang; Paul DiLeo and Eli Remolina are rather more optimistic about the ability of debt conversions to ease debtors' financial problems; Carmen Li and Mahmood Pradhan examine the link between financial liberalization and bankruptcies in Argentina; Kate Phylaktis looks at the effects of capital controls in Argentina, Chile, and Uruguay; and Alvin Marty analyzes the interaction between inflation, financial intermediation, and economic growth. The comments that follow each paper, which give us a taste of the controversies surrounding some of these issues, are welcome—all the more so in that the commentators do not merely suggest refinements at the margin, but also point, where appropriate, to more fundamental shortcomings.

Directory of Nongovernmental Organizations in OECD Member Countries

Development Center of the Organization of Economic Cooperation and Development (OECD), Paris, France, 1990, 708 pp., $50.

This updated and improved edition provides concise descriptions of the aims, development education work, and development activities of 2,542 NGOs in the OECD member countries. The volume also offers indexes to facilitate access to information on the work of NGOs in the development field. It includes entries in English and French. Useful guide for development planners and practitioners.

David Sahn (editor)

Seasonal Variability in Third World Agriculture

The Johns Hopkins University Press, Baltimore, MD, USA, 1989, xiv + 366 pp., $44.50.

This well-ordered book uses a solid set of case studies to illuminate the important theme of production risk and food security. The case studies, drawn from Africa and Asia, evaluate the impact of seasonal variability in climate on food security and malnutrition and examine how food is obtained in times of seasonal scarcity, both in the labor market and on the farm. The implications of seasonal variations for marketing and price policy and the impact of technology and policies on seasonal food security are also considered. A final chapter reviews the policy implications of the case studies.

Ralf Hussmanns, Farhad Mehran, & Vijay Verma

Surveys of economically active Population, Employment, Unemployment and Underemployment

An ILO manual on concepts and methods

International Labour Office, Geneva, Switzerland, 1990, xvi + 409 pp., $32.

A critical issue in the economic analysis of developing economies is the nature and role of labor. Most LDCs are labor-rich. But concepts of employment, unemployment, and underemployment are hard to define in such economies. This ILO manual should help statisticians survey economically active populations, giving policymakers better information on labor markets and their roles in developing countries.

Credits: Composition: Betty Maguire, IMF Graphics Section. Art on the cover and pages 2, 6, 10, 18, 22, 26, David Wisniewski. Charts: In-Ok Yoon, IMF Graphics Section. World Bank photos: Ivan Andrews. IMF photos: Denio Zara and Padraic Hughes-Reid.

New readers who wish to receive *Finance & Development* regularly should apply in writing to Subscription Services, *Finance & Development*, International Monetary Fund, Washington, DC 20431, USA, specifying the language edition and briefly stating the reasons for their request. The contents of *Finance & Development* are indexed in Business Periodicals Index, Public Affairs Information Service (PAIS), and Bibliographie Internationale des Sciences Sociales. An annual index of articles and reviews is carried in the December issue.

Other Books Received

Listed below are some of the books we received but were unable to review because of lack of space.

Rudiger Dornbusch and Steve Marcus (editors), **International Money and Debt: Challenges for the World Economy**, ICS Press, San Francisco, CA, USA, 1991, x + 200 pp., $12.95 (paper).

J.L. Dubois and D. Blaizeau, **Connaître les conditions de vie des ménages dans les pays en développement**, Ministère de la Coopération et du Développement, Paris, France, 1989, Vol. I, 165 pp., FF72; Vol. II, 312 pp., FF84; and Vol. III., 175 pp., FF72.

Richard E. Feinberg, John Echeverri-Gent, and Friedemann Miller, and contributors, **Economic Reform in Three Giants: U.S. Foreign Policy and the USSR, China, and India**, Transaction Books, New Brunswick, NJ, USA, 1990, viii + 247 pp., $24.95 ($15.95 paper).

Helmut Forstner and Robert Ballance, **Competing in a Global Economy**, Unwin Hyman, Winchester, MA, USA, 1990, xvi + 225 pp., $49.95.

David Glover and Ken Kusterer, **Small Farmers, Big Business Contract Farming, and Rural Development**, St. Martin's Press, New York, NY, USA, 1990, vii + 170 pp., $45.

J. Orstrom Molher, **Technology and Culture in a European Context**, Handelshojskolens Forlag, Copenhagen, 1990, 48 pp., 88 DKK.

David Pearce, Edward Barbier, and Anil Markandya, **Sustainable Development: Economies and Environment in the Third World**, Earthscan Publications, London, England, 1990, xi + 217 pp., £9.95.

Pascal Salin, **Macroéconomie**, Presses Universitaires de France, Paris, France, 1991, vii + 388 pp., FF125.

D.S. Tyagi and Vijay Shankar Vyas (editors), **Increasing Access to Food: The Asian Experience**, Sage Publications, Newbury Park, CA, USA, 1991, 455 pp., $27.50.

John K. Whitaker (editor), **Centenary Essays on Alfred Marshall**, Cambridge University Press, New York, NY, USA, xii + 298 pp., $49.50.

FAREWELL

With this issue, we say goodbye to our Art Editor, Dick Stoddard, who is retiring after 19 years with Finance & Development. *During his tenure, Dick helped make this journal more readable and accessible to the intelligent layman with his graphics and overall design.*

International Monetary Fund *announces. . .*

The IMF's Statistical Systems in Context of Revision of the United Nations' *A System of National Accounts*

IMF's Statistical Department and edited by Vicente Galbis

Experts from the IMF, UN, OECD, EC, and statistical institutions examine issues pertaining to external sector transactions, public sector accounts, and financial flows and balances.

US$35.00. English. (paper) xxvii + 599 pp. 1991.
ISBN 1-55775-159-5
Stock # ISSCEA

Legal Effects of Fluctuating Exchange Rates

by Joseph Gold

This volume discusses some of the major legal effects of fluctuating exchange rates in both public international law and national law. The problems and similarities in the solutions are reviewed, and the author recommends further developments in the law.

US$37.50. English. (cloth) xviii + 473 pp. 1990.
ISBN 1-55775-173-0
Stock # LEFEEA

Financial Liberalization, Money Demand, and Monetary Policy in Asian Countries

by Wanda Tseng and Robert Corker

Occasional Paper 84 examines the financial reforms undertaken by nine Asian countries in the 1980s (Indonesia, Korea, Malaysia, Myanmar, Nepal, the Philippines, Singapore, Sri Lanka, and Thailand), and their implications for money demand and monetary policy.

US$10.00. English. (paper) ISBN 1-55775-220-6
Stock # S084EA

Economic Reform in Hungary Since 1968

by Anthony R. Boote and Janos Somogyi

This paper, Occasional Paper No. 83, examines Hungary's reforms since 1968, and discusses the Government's medium-term adjustment program, unveiled in the fall of 1990, which aims to install the key elements of a market economy in three years.

US$10.00. English. (paper) ISBN 1-55775-216-8
Stock # S083EA

Characteristics of a Successful Exchange Rate System

by Jacob A. Frenkel, Morris Goldstein, and Paul Masson

This study, Occasional paper 82, identifies the key characteristics of a successful exchange rate system. It focuses on regimes in the industrial countries and considers the implications for the operation of the international monetary system.

US$10.00. English. (paper) ISBN 1-55775-215-X
Stock # S082EA

Currency Convertibility and the Transformation of Centrally Planned Economies

by Joshua E. Greene and Peter Isard

This study, Occasional Paper 81, examines the problems in establishing currency convertibility—and the optimal timing— in formerly planned economies transforming toward market-oriented systems.

US$10.00. English. (paper) ISBN 1-55775-214-1
Stock # S081EA

Domestic Public Debt of Externally Indebted Countries

by Pablo E. Guidotti and Manmohan S. Kumar

This study, Occasional Paper 80, discusses the evolution of domestic public debt in several indebted countries and its relationship with their external debt and underlying fiscal developments. It examines the links between domestic and external debt, taxes, subsidies, and government spending, and reviews strategies for managing domestic public debt.

US$10.00. English. (paper) ISBN 1-55775-208-7
Stock # S080EA

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